



THE ARAB REPUBLIC OF EGYPT

# MONTHLY WEATHER REPORT

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VOLUME ~~20~~ 22

NUMBER 12

FEBRUARY 1979

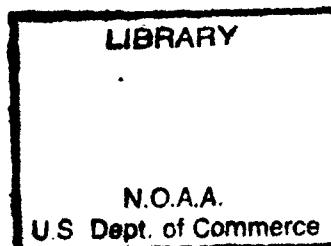
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THE EGYPTIAN METEORLOGICAL AUTHORITY  
CAIRO



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THE EGYPTIAN METEOROLOGICAL AUTHORITY  
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## **PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO**

In fulfilment of its duties, the Egyptian Meteorological Authority issues several reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

**Orders** for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO.

### **THE MONTHLY WEATHER REPORT**

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

### **THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT**

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

### **THE ANNUAL REPORT**

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

### **CLIMATOLOGICAL NORMALS FOR EGYPT**

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

### **METEOROLOGICAL RESEARCH BULLETIN**

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

### **TECHNICAL NOTES**

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.

## CONTENTS

	<b>Page</b>
<b>General Summary of Weather Conditions . . . . .</b>	<b>1</b>

### SURFACE DATA

<b>Table A1.—Monthly values of the Atmospheric Pressure, Air Temperature, Relative Humidity.</b>	
Bright Sunshine Duration, and Piche Evaporation . . . . .	2
„ A2.—Maximum and Minimum Air Temperatures . . . . .	3
„ A3.—Sky Cover and Rainfall . . . . .	4
„ A4.—Number of Days of Occurrence of Miscellaneous Weather Phenomena . . . . .	5
„ A5.—Number in Hours of Occurrences of Concurrent Surface Wind Speed and Direction Recorded Within Specified Ranges . . . . .	6,7

### UPPER AIR DATA

<b>Table B1.—Monthly Means and Monthly Absolute Highest &amp; Lowest Values of Altitude, Air Temperature &amp; Dew point at Standard and Selected Pressure Surfaces . . . . .</b>	<b>8,9</b>
„ B2.—Mean and Extreme values of The Freezing Level and The Tropopause. The Highest Wind Speed in The Upper Air . . . . .	10
„ B3.—Number of Occurrences of Wind Direction within Specified Ranges and The Mean Scalar Wind Speed at the Standard and Selected Pressure Surfaces . . . . .	11—13

### AGRO-METEOROLOGICAL DATA

<b>Reviews of Agro-meteorological Stations . . . . .</b>	<b>14,15</b>
<b>Table C1.—Air Temperature at 1½ metres above Ground . . . . .</b>	<b>16</b>
„ C2.—Extreme Values of Air Temperature at 1½ metres above Ground, Absolute Minimum Air Temperature at 5 Cms Above Ground over Different Fields . .	16
„ C3.—(Solar + Sky) Radiation, Duration of Bright Sunshine, Relative Humidity and Vapour Pressure at 1½ Metres Above Ground, Evaporation and Rainfall . . .	16
„ C4.—Extreme Soil Temperature at Different Depths in Different Fields . . . . .	17
„ C5.—Surface wind. . . . .	17

**Note :** For explanatory notes on the tables please refer to Volume 21 number 1 (January 1975).

# **GENERAL SUMMARY OF WEATHER CONDITIONS**

**FEBRUARY 1979**

Rather warm unstable winter weather during day, cold at night intervened by three cold waves - Rain was below normal.

## **PRESSURE DISTRIBUTION**

The atmospheric pressure over Egypt was mainly influenced by the frequent transit of depressions or troughs through east Mediterranean on the 5th, 6th, 7th, 9th, 17th, 18th, 25th & 26th.

The mean atmospheric pressure during the month was below normal.

## **SURFACE WIND**

Most the winds were SW ly to NW ly at the north and NE ly to NW ly at the south; generally they were light to moderate and became fresh sometimes, raising sand specially on the 26th.

## **TEMPERATURE**

In many days of this month the weather was rather warm during day, intervened by three moderately cold waves, the warmth was remarkable in some days specially on the 18th.

But during night, the weather was generally cold specially in middle Egypt and West desert.

The highest maximum temperature was 36.9°C at Kharga on the 18th.

The lowest maximum temperature was 15.8°C at Port Said on the 22nd.

The highest minimum temperature was 19.0°C at Quseir on the 16th.

& The lowest minimum temperature was 0.4°C at Dakhla on the 5th.

## **PRECIPITATION**

Light rain fell on scattered parts at the northern and eastern parts of the countries and their monthly quantites were below normal, recording maximum total amount of 11.7 mms at Cairo A.P. and maximum daily amount of 7.3 mms.

## **OTHER WEATHER PHENOMENA**

Nil.

**Chairman (M. A. BADRAN)**

**(Board of Directors)**

*Cairo, FEBRUARY 1979*

## SURFACE DATA

Table A 1.—MEAN VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,  
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION  
FEBRUARY 1979

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C							Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mm Mean		
	Mean	D.F. Normal or Average	Maximum		Minimum		$\frac{A+B}{2}$	Dry Bulb		Wet Bulb		Mean	D.F. Normal or Average	Total Actual	Total Possible	%	
			(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average						
Sallum . . . . .	1014.5	-2.5	21.5	1.6	11.2	1.2	16.3	16.0	1.6	11.1	0.5	54	52	—	—	—	7.0
Mersa Matruh . .(A)	1015.1	-2.1	19.8	1.0	10.2	1.8	15.0	14.8	1.5	11.1	0.8	65	63	239.0	309.8	74	6.6
Alexandria . . .(A)	1015.5	-2.0	21.5	2.2	9.4	0.0	15.4	15.1	0.9	11.8	0.7	67	65	228.1	310.2	74	3.6
Port Said. . . . .(A)	1015.7	-1.2	19.7	1.0	13.9	1.9	16.8	16.3	1.4	13.1	1.1	67	65	226.3	309.9	63	4.6
El Arish. . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza. . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta. . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo. . . . .(A)	1012.5	-2.0	22.5	1.7	11.3	1.8	15.9	16.6	1.7	11.3	0.8	52	50	—	—	—	8.6
Fayoum. . . . .	—	—	24.1	1.7	7.6	0.0	15.8	15.5	0.8	11.2	1.0	59	57	—	—	—	4.2
Minya. . . . .(A)	1015.3	-2.4	24.8	2.3	6.7	1.4	15.7	15.2	1.7	10.3	1.3	55	53	265.0	313.6	85	6.0
Assyout. . . . .(A)	1016.0	-1.2	24.2	1.5	7.8	-0.2	16.0	15.9	1.0	9.1	-0.2	37	35	—	—	—	8.8
Luxor. . . . .(A)	1014.1	-2.0	23.3	2.8	9.1	2.3	18.7	18.2	2.2	11.9	1.8	45	43	—	—	—	5.9
Aawan. . . . .(A)	1013.7	-2.1	29.0	2.6	12.9	2.8	20.9	20.6	2.8	11.3	1.9	26	24	253.4	317.8	81	15.2
Siwa . . . . .	1015.6	-2.6	25.3	1.7	7.7	1.6	15.6	15.2	1.6	9.5	0.7	47	45	254.4	312.4	81	5.1
Bahariya. . . . .	1015.2	-2.8	24.4	2.3	8.1	1.7	16.2	16.2	2.4	9.8	1.0	41	39	—	—	—	7.2
Farafra. . . . .	1016.8	-2.7	24.8	2.2	7.4	2.1	16.1	15.9	2.2	9.0	1.5	36	34	—	—	—	8.1
Dakhla. . . . .	1015.9	2.1	26.7	2.9	6.0	-0.6	16.3	16.0	1.8	9.5	1.3	42	40	—	—	—	9.2
Kharga. . . . .	1014.2	3.6	28.0	3.4	20.1	2.8	19.0	19.1	3.6	11.4	2.5	41	39	277.1	316.2	88	9.9
Tor. . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.4
Marghada. . . . .	1014.4	-1.4	23.6	2.2	12.7	2.6	18.1	18.5	2.2	12.5	1.2	46	44	261.3	314.4	83	—
Quseir . . . . .	1013.8	-1.8	24.5	1.7	16.2	2.0	20.3	20.3	1.9	14.1	1.5	47	45	—	—	—	6.5

TABLE A2— MAXIMUM AND MINIMUM AIR TEMPERATURE

FEBRUARY— 1979

Station	Maximum Temperature °C								Mean Dev. From Normal	Minimum Temperature Deg. C								
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Highest	Date	Lowest	Date	No. of Days with Min Temp				
					>25	>30	>35	>40	>45					<10	<5	<0	<-5	
sallum . . . . .	28.6	12	16.4	25	05	00	00	00	00	9.5	—	16.4	12	8.2	19	06	00	00
Mersa Matro . . . . .	29.2	12	15.0	21	03	00	00	00	00	8.6	—	15.2	12	6.6	24	11	00	00
Alexandria . . . . .	28.2	18	17.4	21.22	03	00	00	00	00	7.3	—	13.6	19	5.8	6	18	00	00
port Said . . . . .	30.9	18	15.8	22	03	01	00	00	00	13.6	—	16.9	13	11.8	4	00	00	00
cairo A. P . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fayoum . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
minia . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assuit . . . . .	33.6	18	18.0	3.22	07	01	00	00	00	—	—	16.5	18	7.0	5	08	00	00
Luoxr . . . . .	33.0	18	16.8	7	08	02	00	00	00	4.7	—	11.7	7	3.4	5	23	03	00
aswan . . . . .	33.6	18	19.0	3	11	05	00	00	00	3.7	—	11.4	7	3.0	5	27	06	00
sewa . . . . .	34.8	18	17.7	3	09	05	00	00	00	6.7	—	13.4	18	3.0	24	23	03	00
baharia . . . . .	35.4	18	22.7	10	24	08	01	00	00	4.2	—	15.8	19	4.2	4	17	02	00
Farafra . . . . .	36.0	18	22.7	10	24	09	02	00	00	—	—	18.4	19	6.6	4	03	00	00
Dakhla . . . . .	31.6	18	18.7	2	08	02	00	00	00	6.8	—	13.8	7	1.9	4	21	06	00
kharrga . . . . .	33.7	18	19.8	2	10	03	00	00	00	7.4	—	14.3	7	3.4	4	19	03	00
Hurgada . . . . .	32.4	17	20.4	2	11	03	00	00	00	5.7	—	13.0	7	2.7	20	22	07	00
quseir . . . . .	36.2	18	21.4	3	15	06	02	00	00	5.7	—	11.5	19	0.4	5	26	09	00
Kharga . . . . .	36.9	18	21.4	3	21	09	02	00	00	5.9	—	15.4	15	4.0	5	11	01	00
Tor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Qargada . . . . .	30.0	18	19.2	3	08	00	00	00	00	7.4	—	17.2	19	8.2	5	02	00	00
HTsseir . . . . .	30.2	18	20.8	3	10	01	00	00	00	12.2	—	19.0	16	13.6	4	00	00	00

Table A 3. — SKY COVER RAIN FALL

FEBRUARY. — 1979

Station	Mean Sky Cover oct.					Rain Fall mms.									
	00	06	12	18	Daily	Total Amount	Dev. From Normal	Max. Fall in one Day		Number of Days with Amount of Rain					
	U.T.	U.T.	U.T.	U.T.	Mean			Amount	Date	<0.1	≥0.1	≥1.0	5.0	≥10	≥25
Sallum . . . . .	3.2	2.7	3.5	2.4	2.8	7.4	—2.6	4.3	21	00	04	04	00	00	00
Mersa Matruh . . (A)	2.4	3.9	3.7	2.5	2.8	4.8	—1.3	6.3	7	03	03	01	00	00	00
Alexandria . . . (A)	2.1	2.8	4.5	0.3	3.0	8.4	—18.0	7.3	7	00	04	01	01	00	00
Port Said . . . . (A)	2.1	2.4	2.7	2.4	2.3	5.3	—6.0	3.6	9	00	03	02	00	00	00
El Arish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo . . . . . (A)	0.8	1.3	2.3	1.8	1.5	11.7	7.8	7.0	—	00	03	03	01	00	00
Fayoum . . . . .	—	1.0	1.8	1.4	—	7.9	—6.8	4.9	7	00	03	03	00	00	00
Minya . . . . .	0.6	1.2	1.7	0.8	0.7	Tr.	—	TR	7,9	02	00	00	00	00	00
Assyout . . . . (A)	0.3	0.6	1.4	0.6	1.1	Tr.	—	TR	7	01	00	00	00	00	00
Luxor . . . . (A)	0.6	1.3	1.8	1.1	1.4	0.0	—9.0	—	—	00	00	00	00	00	00
Aswan. . . . (A)	0.9	1.7	1.7	1.0	1.0	0.0	—9.0	—	—	00	00	00	00	00	00
Siwa . . . . .	0.8	1.1	1.5	1.0	1.0	0.0	—2.6	—	—	00	00	00	00	00	00
Bahariya . . . . .	0.6	1.6	1.6	0.6	0.2	Tr.	—	Tr.	7,8	02	00	00	00	00	00
Farafra . . . . .	—	1.1	1.1	0.5	—	0.0	0.4	—	—	00	00	00	00	00	00
Dakhla . . . . .	0.1	0.6	1.0	0.3	0.9	0.0	0.4	—	—	00	00	00	00	00	00
Kharga . . . . .	0.6	1.0	1.6	0.5	1.2	0.0	—0.4	—	—	00	00	00	00	00	00
Tor . . . . .	—	—	—	—	—	—	—	0.4	—	—	—	—	—	—	—
Hurghada . . . . .	0.5	1.0	2.6	1.1	1.0	0.4	—0.4	—	7	00	01	00	00	00	00
Quseir . . . . .	0.1	1.2	1.6	1.0	1.6	TR	—0.4	TR	9	01	00	00	00	00	00

Table A 4. - DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

FEBRUARY - 1979

TABLE A 5 - NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

FEBRUARY—1979

**Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES**

**FEBRUARY—1979**

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within the ranges of directions indicated												
					345	015	045	075	105	135	165	195	225	255	285	315	All directions
					/	/	/	/	/	/	/	/	/	/	/	/	/
Luxor . . . . .	00	00	00	1—10	66	97	41	50	20	29	68	69	34	58	56	52	640
				11—27	10	0	00	00	00	00	00	02	04	07	02	06	32
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	76	98	41	50	20	29	68	71	38	65	58	58	672
Aswan . . . . .	00	00	00	1—10	236	83	13	06	06	11	21	15	27	35	22	44	519
				11—27	103	20	00	00	00	03	04	03	04	02	04	10	153
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	338	103	13	06	06	14	25	18	31	37	26	54	672
sewa . . . . .	42	00	00	1—10	38	67	61	29	20	28	114	104	34	25	05	09	534
				11—27	02	14	14	03	03	00	20	33	04	03	00	00	96
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	40	81	57	23	32	28	134	137	38	28	05	09	630
Dakha . . . . .	53	10	00	1—10	80	50	29	41	31	14	17	28	29	32	85	104	540
				11—27	04	33	00	00	00	00	00	00	00	00	15	15	69
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	113	54	29	41	31	15	18	28	29	32	100	119	609
kharja . . . . .	02	00	00	1—10	125	75	11	08	09	15	20	11	18	37	31	120	480
				11—27	120	28	00	00	00	00	04	02	07	01	12	16	190
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	254	103	11	08	09	15	24	13	25	38	43	163	670
hurgada . . . . .	05	01	00	1—10	28	20	19	15	22	29	06	04	16	89	128	18	394
				11—27	22	01	00	00	06	00	01	00	01	29	107	105	272
				28—47	00	00	00	00	00	00	00	00	00	00	00	01	00
				≥48	00	00	06	00	00	00	00	00	00	00	00	00	00
				All speeds	50	21	19	15	28	29	07	04	17	118	235	123	666
Quseir . . . . .	03	01	00	1—10	31	25	14	11	13	11	18	17	21	75	139	34	418
				11—27	134	06	00	00	03	09	02	00	03	09	17	67	260
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speees	165	31	14	11	16	20	20	17	24	84	156	110	668

## UPPER AIR CLIMATOLOGICAL DATA

**Table B 1.—MONTHLY MEANS, ABSOLUTE HIGHER AND LOWER VALUES OF ALTITUDE, AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES**  
**FEBRUARY — 1979**

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marsa Matruh (A) 0000 U.T.	Surface	28	1012 mb.*	1018 mb.*	1004 mb.*	28	13.2	17.0	9.0	28	5.7
	1000	28	129	177	45	28	13.3	18.8	9.0	28	5.9
	850	28	1485	1552	1400	28	6.8	17.7	-2.3	27	-4.6
	700	27	3057	3138	2955	27	-1.4	6.0	-8.3	26	-17.9
	600	27	4272	4380	4159	27	-1.8	00.0	-14.3	26	-26.4
	500	27	5663	5805	5524	27	-17.6	-11.1	-22.8	26	-32.5
	400	27	7297	7485	7121	27	-29.5	-22.1	-34.9	26	-43.6
	300	27	9292	9545	9087	27	-34.0	-33.7	-49.5	25	-55.2
	250	25	10505	10805	10238	25	-49.0	-40.9	-60.0	23	-60.6
	200	23	11953	12275	11720	23	-54.5	-48.5	-69.3	19	-65.6
	150	22	13769	14078	13449	22	-60.4	-54.4	-79.0	9	-68.8
	100	20	16272	16493	16094	20	-66.6	-58.6	-74.9	1	74.6
	70	15	18443	18586	18298	15	-67.0	-58.6	-72.3	—	—
	60	9	19409	19560	19300	9	-64.2	-58.3	-67.8	—	—
	50	8	20509	20636	20410	5	-60.7	-55.0	-64.5	—	—
	40	5	21954	22080	21870	5	-57.9	-53.0	-61.6	—	—
	30	5	23700	23861	23636	1	-54.0	-47.2	-58.4	—	—
	20	1	26217	—	—	—	-54.1	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	28	999 m.b.	1004 m.b.	992 m.b.	28	13.4	19.0	09.7	28	05.5
	1000	28	129	171	070	14	12.6	17.5	09.7	14	06.0
	850	28	1493	1543	1427	28	09.4	19.0	03.5	28	05.3
	700	28	3083	3175	2984	28	02.1	10.8	-06.9	28	-12.5
	600	28	4313	4433	4177	28	-05.0	01.0	-11.9	28	-19.4
	500	28	5793	5869	5546	28	-14.5	-8.9	-20.9	28	-27.8
	400	28	7374	7554	7135	28	-26.7	-21.7	-34.1	28	-38.3
	300	28	9391	9611	9105	28	-40.4	-34.6	-47.5	28	-50.1
	250	28	10629	10859	10314	28	-46.3	-36.5	-55.0	27	-55.8
	200	28	12083	12336	11784	28	-55.9	-45.7	-61.5	25	-61.2
	150	27	13910	14151	13662	27	-59.1	-51.6	-64.0	15	-66.2
	100	22	16394	16607	16214	22	-67.6	-58.4	-72.6	1	-68.5
	70	13	18503	18700	18364	13	-68.1	-61.7	-72.9	—	—
	60	6	19470	19680	19370	6	-66.8	-64.9	-68.7	—	—
	50	6	20548	20748	20417	6	-64.4	-62.7	-66.7	—	—
	40	4	22045	22330	21900	4	-61.6	-59.8	-66.1	—	—
	30	4	23721	23947	23572	4	-59.6	-56.9	-65.3	—	—
	20	3	26350	26525	26210	3	-54.2	-52.1	-56.2	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface	27	*	*	*	27	15.7	22.6	10.6	27	0.9
	1000	27	131	168	99	—	—	—	—	—	—
	850	27	1517	1547	1479	27	15.1	20.0	7.2	27	1.8
	700	27	3137	3178	3059	27	6.0	10.9	2.1	27	9.1
	600	27	4389	4432	4293	27	-1.4	2.3	-3.9	27	-15.7
	500	27	5810	5865	5714	27	-11.3	-6.9	-14.3	27	-23.7
	400	27	7490	7559	7385	27	-23.1	-20.3	-25.9	27	-32.2
	300	26	9544	9645	9423	26	-35.7	-31.1	-41.4	26	-45.2
	250	26	11797	11007	10646	26	-43.6	-39.5	-50.3	25	-53.4
	200	25	12272	12487	12107	25	-52.7	-49.0	-58.1	25	-61.7
	150	25	14084	14240	13897	25	-64.4	-60.4	-67.4	—	—
	100	25	16488	16668	16306	25	-75.9	-65.3	-82.6	—	—
	70	11	18535	18625	18198	11	-76.9	-65.7	-83.2	—	—
	60	4	19427	19500	19280	4	-71.4	-66.7	-76.2	—	—
	50	4	20513	20538	20490	4	-67.0	-58.0	-75.5	—	—
	40	1	21970	—	—	1	-64.3	—	—	—	—
	30	1	23651	—	—	1	-58.1	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = Number of observations of specified pressure surface.

\* The atmospheric pressure corrected to the elevation of the radiosonde stations.

## UPPER AIR CLIMATOLOGICAL DATA

Table B1 (contd).—MONTHLY MEANS, ABSOLUTE HIGHEST & LOWEST VALUES  
OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT  
STANDARD AND SELECTED PRESSURE SURFACES

FEBRUARY—1979

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mores Matriub 1200 U.T.	Surface	25	1010m.b.	1017m.b.	1002m.b.	22	18.6	24.8	14.0	22	7.8
	1000	22	1011	177	43	22	17.9	26.0	13.1	21	6.9
	850	22	128	1221	1400	22	7.9	18.0	1.2	21	—4.6
	700	24	1492	3172	2921	24	0.9	8.9	—7.9	20	—16.2
	600	24	3071	4428	4134	24	6.4	0.3	—14.9	20	—22.0
	500	24	4296	2863	2494	24	—21.6	—10.0	—23.9	21	—31.2
	400	23	2698	7243	7088	23	—27.7	—22.4	—32.1	21	—43.2
	300	22	7321	9287	9038	22	—41.8	—32.4	—49.0	20	—220.
	250	22	9322	10806	10218	22	—47.8	—39.7	—23.9	20	—62.9
	200	21	10273	12236	1170	21	—22.7	—46.9	—29.5	18	—66.8
	150	20	12035	14069	13248	20	—27.2	—21.1	—64.9	11	—97.9
	100	17	13884	16271	16128	17	—62.9	—28.8	—74.0	—	—
	70	16	16222	18727	18338	16	—63.4	—28.6	—72.0	—	—
	60	11	19222	19700	19420	11	—60.4	—23.3	—69.9	—	—
	50	10	20662	20781	20232	10	—23.9	—20.0	—67.9	—	—
	40	4	22338	22760	22100	4	—21.2	—14.3	—27.7	—	—
	30	4	23998	24229	23844	4	—42.4	—46.2	—24.9	—	—
	20	1	26348	—	—	1	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	28	* 998mb.	* 1002mb.	* 991m.b.	28	21.3	32.0	12.6	28	04.6
	1000	28	124	165	061	14	20.1	25.4	16.8	14	03.2
	850	28	1503	1547	1422	28	10.4	21.8	00.9	28	—05.8
	700	27	3103	3189	2985	27	03.2	12.0	—04.3	27	—15.0
	600	27	3097	4450	4171	27	—03.4	—04.3	—10.1	27	—20.4
	500	27	4331	5808	5574	27	—12.9	—04.5	—21.1	27	—28.5
	400	26	5748	7616	7204	26	—24.6	—17.3	—27.7	26	—37.8
	300	25	9446	9722	9184	25	—38.9	—29.8	—49.0	25	—50.8
	250	23	10683	10999	10363	23	—43.7	—36.8	—54.7	23	—25.9
	200	23	12166	12507	11803	23	—49.2	—44.1	—26.3	23	—52.9
	150	22	14037	14401	13769	22	—56.0	—47.2	—60.5	81	—66.0
	100	20	16589	16971	16254	20	—63.6	—52.8	—70.0	2	—68.6
	70	13	18757	18987	18500	31	—64.0	—54.7	—73.1	—	—
	60	11	19743	19980	16440	11	—61.7	—53.1	—71.9	—	—
	50	11	20842	21114	20490	11	—59.1	—50.6	—67.2	—	—
	40	4	22212	22450	21900	4	—55.6	—47.6	—62.0	—	—
	30	2	24068	24204	23931	2	—53.9	—51.0	—56.8	—	—
	20	2	26704	27876	26231	2	—49.0	—46.1	—52.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Awyan (A) 1200 U.T.	Surface	28	* 992m.b.	* 996m.b.	* 988m.b.	28	27.9	34.6	22.2	28	3.7
	1000	28	120	158	87	—	—	—	—	—	—
	850	28	1530	1559	1487	28	17.3	22.3	11.6	28	—5.1
	700	28	3163	3219	3099	28	8.9	15.0	3.0	28	—12.5
	600	28	4421	4497	4339	28	0.8	5.8	—30.7	28	—18.4
	500	28	2862	5955	5568	28	—9.0	—3.4	—12.3	28	—26.1
	400	27	7222	7675	7434	27	—20.6	—15.4	—52.0	27	—32.2
	300	26	9222	9785	9474	26	—33.2	—27.8	—38.4	26	—47.0
	250	26	10893	11070	10734	26	—41.2	—37.6	—46.5	26	—54.6
	200	25	12381	12590	12214	26	—21.4	—45.9	—57.3	26	—63.1
	150	23	14220	14773	14110	25	—62.2	—52.9	—64.9	2	—67.5
	100	21	16643	17008	16530	23	—73.1	—65.9	—77.4	—	—
	70	15	18709	19166	18590	21	—74.5	—66.7	—82.0	—	—
	60	15	19645	20060	19500	15	—69.4	—65.1	—76.6	—	—
	50	9	20731	21209	20275	15	—64.1	—61.0	—69.0	—	—
	40	7	22197	22490	22100	9	—58.8	—56.2	—61.3	—	—
	30	1	23903	24058	23762	7	—53.0	—49.6	—56.1	—	—
	20	—	26738	—	—	1	—45.5	—47.4	—	—	—
	10	—	—	—	—	—	—	—42.1	—	—	—

N The number of cases the element has been observed during the month.

\* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE  
THE HIGHEST WIND SPEED IN THE UPPER AIR

FEHRURAY — 1979

Station	Freezing Level												First Tropopause												Highest wind speed			
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)	Pressure (mb.)	Direction (900—360)•	Speed in knots						
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)										
T.U. 0000	(N)	(N)	(N)							(N)	(N)	(N)																
	Mersa Matruh (A)	2707 (27)	735 (27)	-12.3 (26)	4338	600	-20.8	1220	880	-2.6	12345 (17)	211 (17)	-59.3 (17)	18200	75	-69.7	7580	380	-340	7580	386	240	52	—01—				
	Heliwan . . .	3447 (28)	674 (28)	-13.7 (28)	4540	292	-24.2	2050	795	-4.7	12811 (17)	191 (17)	-60.0 (17)	17220	87	-73.2	8990	307	-47.6	11285	221	265	128					
U.T. 1200	Aswan . . . (A)	4105 (27)	623 (27)	-13.9 (27)	4840	570	-23.5	2860	718	-2.5	16057 (6)	109 (6)	-74.6 (6)	17340	87	-78.4	15080	125	-70.5	11300	231	260	135					
	(N)	(N)	(N)							(N)	(N)	(N)																
	Mersa Matruh (A)	3158 (24)	697 (42)	-16.8 (42)	4500	596	-25.1	1990	750	-2.6	17600 (5)	48 (6)	-64.0 (6)	19660	06	-65.7	15700	108	-60.0	8830	328	210	115					
	Heliwan . . .	3627 (27)	661 (27)	-16.5 (27)	2100	554	-14.7	2120	787	9.4	12365 (15)	210 (51)	-54.1 (15)	17750	083	-64.5	8520	330	-42.3	5800	285	250	150					
	Aswan . . . (A)	4498 (28)	595 (28)	-18.4 (28)	5380	537	-14.2	3500	668	-10.4	16480 (18)	104 (18)	-72.6 (18)	18050	78	-80.9	14950	131	-69.3	11400	232	250	1					

N = The number of cases the element has been observed during the month.

**TABLE B-3. NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.**

Mersa Matruh FEBRUARY — 1979

Station	Pressure Surface (Millibar)	Wind within specified ranges of direction (000—360°)														Number of calm winds	Total number of observations (TN)	Mean scalar wind Speed (knots)										
		345		015		450		075		105		135		165		195		225		255								
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m							
0000 U.T.	Surface	0	—	1	10	4	10	2	2	3	10	2	8	3	7	1	22	4	13	2	12	2	17	3	14	0	28	11
	1000	1	7	1	15	2	12	2	—	3	17	2	10	3	12	1	31	3	19	2	16	3	18	4	22	0	28	17
	850	1	11	0	—	4	—	1	11	2	18	0	—	0	—	3	26	3	22	9	23	2	12	4	22	0	28	21
	700	0	—	0	—	0	—	0	12	0	—	0	—	1	24	3	27	2	16	11	27	4	24	2	23	0	26	22
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	34	2	39	10	38	2	04	4	—	0	26	36
	500	0	—	0	—	1	—	0	—	0	—	0	—	0	—	0	—	6	46	10	47	2	14	2	43	0	23	44
	400	0	—	1	—	1	—	0	—	0	—	0	—	0	—	0	—	8	20	6	24	6	22	0	—	0	20	48
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	24	2	28	1	—	1	—	0	7	20
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	42	1	—	0	—	0	2	48
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	1	7	1	2	2	9	2	14	1	13	2	10	1	13	2	21	3	20	1	7	5	18	4	11	0	22	14
	1000	1	10	2	13	0	—	1	21	0	—	2	16	2	32	3	25	2	18	6	25	3	16	0	22	20		
	850	1	13	0	—	0	—	0	—	2	10	1	11	4	20	4	17	6	23	3	13	2	28	1	16	0	22	18
	700	0	—	0	—	0	—	0	—	0	—	1	10	3	23	3	21	9	30	4	23	3	21	1	34	0	24	26
	600	0	—	0	—	0	—	0	—	0	—	0	—	2	43	5	33	8	30	7	36	1	38	0	24	34		
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	55	11	47	5	37	2	44	0	24	45		
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	55	05	55	4	38	1	47	0	24	50		
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	93	2	40	1	64	0	—	0	0	0	4	60		
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	82	0	—	0	—	0	0	0	0	1	82	
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	160	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed within the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3 (contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.  
HELWAN (A) FEBRUARY — 1979

Observation	Pressure Surface (Millibar)	Wind within specified ranges of direction (000—360°)														Number of calm winds	Total number of observations (TN)	Mean scalar wind speed						
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 135		135 / 164		165 / 194		195 / 224		235 / 254		255 / 284				
		N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m			
0000 T.U.	Surface	2	06	4	06	10	08	2	06	4	05	0	—	3	07	0	—	1	04	0	—			
	1000	2	08	3	07	6	08	1	05	2	04	0	—	0	—	0	—	0	—	0	—			
	850	5	17	4	10	1	10	0	—	0	—	1	05	1	10	2	16	3	13	5	23			
	700	2	30	1	12	0	—	0	—	0	—	0	—	0	—	2	33	1	23	9	23			
	600	3	32	0	—	0	—	0	—	0	—	0	—	0	—	3	48	6	37	13	31			
	500	3	46	0	—	0	—	0	—	0	—	0	—	0	—	3	62	3	49	16	48			
	400	2	42	0	—	0	—	0	—	0	—	0	—	0	—	6	60	13	67	5	50			
	300	1	54	0	—	0	—	0	—	0	—	0	—	0	—	2	92	7	66	7	57			
	250	1	63	0	—	0	—	0	—	0	—	0	—	0	—	1	100	6	79	5	56			
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	106	7	90	2	55			
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	95	2	81	0	0			
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	71	0	0			
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
1200 U.T.	Surface	2	08	1	10	7	09	0	—	0	—	1	10	2	05	4	07	3	06	2	06			
	1000	2	08	0	—	5	09	0	—	0	—	0	1	06	1	05	1	04	1	06	1			
	850	3	11	3	10	2	14	2	06	1	03	2	05	0	—	3	22	2	11	4	14			
	700	2	29	1	05	0	—	1	12	0	—	0	—	1	09	2	24	3	25	8	30			
	600	2	35	0	—	0	—	0	—	0	—	0	—	0	—	4	34	16	40	5	22			
	500	1	49	0	—	0	—	0	—	0	—	0	—	0	—	5	44	13	56	7	30			
	400	1	39	0	—	0	—	0	—	0	—	0	—	0	—	2	66	19	57	2	38			
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	66	11	88	6	55			
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	42	6	88	7	67			
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	96	5	92	0	0			
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	81	1	58	0	0			
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	0	—	0	0			
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			

N—The number of cases the wind has been observed from the range of direction during the month

TN—The total number of cases the wind has been observed for all directions during the month.

**Table B 3.—(contd.) NUMBER OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES ASWAN FEBRUARY — 1979**

Time	Pressure Surface (Millibar.)	Wind within ranges of direction (000—360°)															Number of Calm winds	Total Number of Observations (T.N.)	Mean Scalar wind Speed (Knots)									
		345		015		045		075		105		135		165		195		225		255								
		N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m							
0000 U.T.	Surface	17	8	3	9	1	10	1	8	—	—	0	—	0	—	1	7	1	4	0	—	3	10	0	27	9		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	850	3	19	2	9	3	12	4	12	1	11	0	—	1	3	0	—	1	10	3	19	3	17	6	12	27		
	700	0	—	1	7	2	15	0	—	0	—	0	—	2	8	1	—	12	3	29	7	19	3	14	0	19	51	
	600	1	18	0	—	0	—	0	—	0	—	0	—	1	19	0	—	4	22	6	23	5	26	1	12	0	18	24
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	29	7	45	7	31	1	13	0	18	34		
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	23	11	56	3	43	2	18	0	18	68		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	89	13	67	2	58	0	—	0	0	0		
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	82	13	75	0	—	0	—	0	0	14		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	60	8	83	2	77	0	—	0	0	12		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	60	6	52	1	53	0	—	0	0	81		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	32	0	—	0	—	0	0	28		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	32		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	14	11	3	8	0	—	0	—	1	4	1	3	2	11	2	7	2	6	0	—	0	—	2	7	1	28	9
	1000	—	—	—	—	—	—	—	—	1	0	—	4	10	1	17	1	12	4	13	7	12	3	9	3	15	09	
	850	1	7	1	10	1	9	2	13	0	—	1	2	2	0	—	12	6	32	9	24	5	17	3	13	28		
	700	0	—	1	3	1	22	0	—	0	—	1	0	0	—	2	36	7	33	13	29	2	22	0	23	21		
	600	2	9	1	6	1	3	0	—	0	—	0	—	0	—	0	—	8	50	14	32	2	37	2	15	26		
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	63	11	49	2	47	0	—	23		
	400	0	—	3	—	0	—	0	—	0	—	0	—	0	—	0	—	6	91	15	70	0	—	0	—	76		
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	100	11	72	3	65	0	—	17		
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	81	15	32	1	41	0	—	81		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	55	7	55	1	71	0	—	90		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	13	0	—	2	40	0	—	27		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2		
	70	1	12	0	—	0	—	0	—	1	11	0	—	0	—	0	—	0	—	0	—	0	—	2	20	11		
	60	0	—	0	—	0	—	0	—	1	20	0	—	1	18	0	—	0	—	0	—	0	—	0	—	18		
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1		
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	27		
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the element has been observed during the month.

TN = The total Number of cases the wind has been observed for all directions during the month.

## MONTHLY REVIEW OF AGROMETEOROLOGICAL STATIONS

### MERSA MATRUH — FEBRUARY 1979

The mean daily air temperature and relative humidity were slightly above normal. The total monthly rainfall was 4.8 mms. while the normal is 15.5mms.

The maximum temperatures were around normal, except for two heat waves in the periods (11th - 13th) and the 16th and one cold wave on the 21st and the 22nd. The maximum temperatures ranged between 15.0°C on the 21st and 29.2°C on the 12th. The minimum temperatures ranged between 6.6°C on the 24th and 15.2°C on the 12th.

The mean actual daily sunshine duration was 0.9 hour above average. The mean daily wind speed at 1.5 met. height was 0.3 met./sec below average.

The highest maximum soil temperatures were around those of February 1978 with departures between  $-0.1^{\circ}\text{C}$  at 10cm. depth and  $2.8^{\circ}\text{C}$  at 20cm. depth. The lowest minimum soil temperatures were at all depths above those of February 1978 with departures between  $0.8^{\circ}\text{C}$  at 2cm. depth and  $3.0^{\circ}\text{C}$  at 100cm. depth.

### TAHIRIR — FEBRUARY 1979

The mean daily air temperature was nearly equal to normal. The mean daily relative humidity was equal to normal. The total monthly rainfall was 2.7mms. while the normal is 4.5mms.

The month was distinguished by two warm waves in the periods (11th-18th) and the 26th, and a slightly cold wave on the 22nd. Apart from these, mild weather prevailed in general. The maximum temperatures ranged between  $19.6^{\circ}\text{C}$  on the 22nd and  $34.8^{\circ}\text{C}$  on the 18th. The minimum temperatures ranged between  $2.0^{\circ}\text{C}$  on the 4th and  $12.7^{\circ}\text{C}$  on the 9th.

The mean daily actual sunshine duration was higher than normal by 0.6 hour. The mean daily wind speed at 1.5met. height and pan evaporation were less than normal respectively by 0.4 met./sec. and 0.18 mm.

The highest maximum soil temperatures were round normal with departures between  $-0.7^{\circ}\text{C}$  at 20cms. and 600cms. depths and  $+1.8^{\circ}\text{C}$  at 10cms. depth. The lowest minimum soil temperatures were around normal with departures between  $-0.9^{\circ}\text{C}$  at 600 cms. depth and  $+1.7^{\circ}\text{C}$  at 20 cms. and 50 cms depths.

### BHTIM — FEBRUARY 1979

The mean daily air temperatures was above no rmal by  $1.2^{\circ}\text{C}$ . The mean daily relative humidity was nearly equal to normal. The total monthly rain fall was 10.0 mm while the normal is 0.3 mm.

The month was intervened by three warm waves in the periods (5th - 6th), (11th - 18th) & 26th and two cold waves in the periods (7th - 10th). The minimum temperatures ranged between  $18^{\circ}\text{C}$  on the 22th and  $33.0^{\circ}\text{C}$  on the 18th. The minimum temperatures ranged between  $1.7^{\circ}\text{C}$  on the 3rd and  $12.7^{\circ}\text{C}$  on the 7th

The mean daily actual sunshine duration and pan evaporation were above normal by 0.3 hour and 0.12mm respectively. The mean daily wind speed at 1.5 met. height was below normal by 0.1 met./sec.

The highest maximum soil temperatures were around normal with departures between  $-0.2^{\circ}\text{C}$  at 300cms depth and  $+2.3^{\circ}\text{C}$  at 2 cms depth. The lowest minimum soil temperatures were slightly above normal with departures between  $0.0^{\circ}\text{C}$  at 300cms depth and  $1.3^{\circ}\text{C}$  at both 2cms, 10cms depth.

#### ASYOUT — FEBRUARY 1979

The mean daily air temperature and relative humidity were slightly above those of last February. The total monthly rainfall was 0.2mm. while last February was rainless.

The month was generally warm at day and cold at night. The maximum temperatures ranged between  $20.4^{\circ}\text{C}$  on the 3rd and  $31.2^{\circ}\text{C}$  on the 18th. The minimum temperatures ranged between  $2.8^{\circ}\text{C}$  on the 5th and  $12.1^{\circ}\text{C}$  on the 6th.

The mean daily actual sunshine duration and pan evaporation were slightly below those of last February.

The highest maximum soil temperatures were above those of last February with departures between  $0.1^{\circ}\text{C}$  at 300 cms. depth and  $2.5^{\circ}\text{C}$  at 2cms. depth. The lowest minimum soil temperatures were above those of last February with departures between  $0.5^{\circ}\text{C}$  at 100 cms. depth and  $2.6^{\circ}\text{C}$  at 10 cms. depth.

#### EL-KHARGA — FEBRUARY 1979

The mean daily air temperature and relative humidity were above normal by  $2.7^{\circ}\text{C}$  and 3% respectively. The month was rainless while the normal total monthly rainfall is trace.

The month was generally hot. The maximum temperatures ranged between  $21.4^{\circ}\text{C}$  on the 3rd and  $36.9^{\circ}\text{C}$  on the 18th. The minimum temperatures ranged between  $4.0^{\circ}\text{C}$  on the 5th and  $15.4^{\circ}\text{C}$  on the 15th.

The highest maximum soil temperatures were above normal with departures between  $00.0^{\circ}\text{C}$  at 200, 300 cms depths and  $7.2^{\circ}\text{C}$  at 2cms depth. The lowest minimum soil temperatures were around normal with departures between  $-0.1^{\circ}\text{C}$  at 10 cms depth and  $+1.9^{\circ}\text{C}$  at 2.5 cms depth.

The mean daily actual sunshine duration was below normal by 0.2 hour and pan evaporation was equal to normal. The mean daily wind speed at 1.5 met height was below average by 0.5met./sec.

**Table C 1. -AIR TEMPERATURE AT 1½ METRES ABOVE GROUND  
FEBRUARY — 1979**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh . .	19.8	10.2	14.8	12.9	16.7	24.0	24.0	24.0	21.7	10.8	1.7	0.4	0.0	0.0	0.0	0.0
Tahrir . . . . .	23.5	6.5	14.3	10.2	18.3	24.0	24.0	20.4	17.1	10.1	3.6	1.0	0.3	0.0	0.0	0.0
Bahtim . . . . .	22.5	6.2	14.1	10.4	17.8	24.0	24.0	22.8	17.3	10.2	3.5	1.0	0.2	0.0	0.0	0.0
Assiut . . . . .	25.0	6.9	15.5	11.6	19.5	24.0	24.0	23.9	18.0	11.4	6.1	1.8	0.1	0.0	0.0	0.0
Kharga . . . . .	27.0	10.2	19.2	15.7	22.6	24.0	24.0	23.9	22.5	17.0	10.5	4.5	1.6	0.3	0.0	0.0

**Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND,  
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER  
DIFFERENT FIELDS.  
FEBRUARY — 1979**

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh . .	29.2	12	15.0	21	15.2	12	6.6	24	4.8	4,21	—	—
Tahrir . . . . .	34.8	18	18.6	22	13.6	7	2.0	4	0.7	3	-0.8	23
Bahtim . . . . .	33.0	18	18.0	22	12.7	7	1.7	3	-1.5	3	-1.8	23
Assiut . . . . .	31.2	18	20.4	3	12.1	6	2.8	5	-1.4	24	—	—
Kharga . . . . .	42.4	18	21.4	3	14.5	19	4.0	5	1.0	5	—	—

**Table C 3.—( SOLAR + SKY ) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL.  
FEBRUARY — 1979**

STATION	solar+ SKY Radiation grn. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mmes)					Evaporation (mmes)		Rainfall (mmes)			
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Picke	Pan class A	Total Amount Monthly		
																Max. Fall in one day	Date		
M. Matruh . .	306.9	230.3	309.1	82	66	53	19	26	8.2	8.6	12.1	15,16	3.4	18	6.6	—	4.8	3.6	7
Tahrir . . . . .	—	236.5	310.5	76	66	40	15	18	7.6	7.5	12.2	17	3.5	27	4.4	4.86	2.7	1.6	9
Bahtim . . . . .	—	236.0	311.1	76	66	41	17	18	7.6	7.4	12.2	17	3.6	27	4.6	4.98	10.0	6.3	7
Assiut . . . . .	—	271.8	314.5	86	54	32	16	24	6.8	6.9	12.3	18	3.4	24	4.8	4.94	0.2	0.2	7
Kharga . . . . .	—	276.1	316.2	88	41	27	15	26	6.5	7.4	12.5	14	2.6	27	9.9	8.72	0.0	0.0	—

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms)  
IN DIFFERENT FIELDS**

**FEBRUARY— 1979**

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Mersa Matruh.	H	29.1	25.3	22.4	20.4	17.8	18.6	19.6	—	—	—	—	—	—	—	—	—
	L	8.4	9.6	12.0	13.8	15.6	17.2	19.0	—	—	—	—	—	—	—	—	—
Tahrir . . .	H	35.0	30.2	26.9	20.6	19.8	19.4	17.1	21.3	22.1	20.9	20.4	19.5	17.6	17.5	18.6	—
	L	6.6	7.2	9.0	13.6	16.0	17.8	19.6	21.1	8.8	9.6	10.0	10.4	14.5	15.6	17.9	—
Bahtim . . .	H	38.3	27.8	23.0	20.2	19.8	20.1	23.0	23.9	21.6	19.8	18.0	16.1	16.6	17.4	19.8	—
	L	7.7	8.8	12.9	15.8	18.3	19.7	22.4	23.4	7.9	9.2	11.1	13.1	15.2	17.1	19.3	—
Asuit. . . . .	H	47.9	35.6	28.9	22.7	21.2	21.4	22.7	24.4	—	—	—	—	—	—	—	—
	L	8.2	9.3	13.4	17.0	19.2	20.5	22.2	24.0	—	—	—	—	—	—	—	—
Kharga . . .	L	46.5	39.9	34.1	27.2	23.7	23.8	25.6	27.7	—	—	—	—	—	—	—	—
	H	7.0	9.9	12.0	17.0	20.8	22.7	25.2	27.0	—	—	—	—	—	—	—	—

**TABLE C 5.—SURFACE WIND**

**FEBRUARY— 1979**

STATION	Wind Speed m/sec (at 1½ metres)			Days with surface wind speed (at 10 metres)							Max. Gust (knots, (at 10 metre)	
	Mean of the day	Night time mean	Day time mean	≥ 10 (knots)	15 (knots)	≥ 20 (knots)	≥ 25 (knots)	≥ 30 (knots)	≥ 35 (knots)	≥ 40 (knots)	Value (knots)	Date
Mersa. Matruh	4.0	3.4	4.8	28	26	15	8	2	0	0	40	6
Tahrir . . . .	1.9	1.3	2.4	28	18	6	2	0	0	0	33	26
Baht m . . .	2.1	1.4	2.8	26	17	6	2	1	0	0	40	9
Asutii. . . . .	—	—	—	11	2	0	0	0	0	0	26	7
Kharga . . . .	2.4	1.6	3.2	27	18	9	4	0	0	0	31	7

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### **THE MONTHLY WEATHER REPORT**

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

### **THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT**

Gives a review of weather experienced in the agro-meteorological stations of Egypt as monthly values of certain elements.

### **THE ANNUAL REPORT**

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

### **CLIMATOLOGICAL NORMALS FOR EGYPT**

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

### **METEOROLOGICAL RESEARCH BULLETIN**

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

### **TECHNICAL NOTES**

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.



THE ARAB REPUBLIC OF EGYPT

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# MONTHLY WEATHER REPORT

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VOLUME 26

NUMBER 3

MARCH 1979

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U.D.O. 551. 505.1 (62)

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THE EGYPTIAN METEOROLOGICAL AUTHORITY  
CAIRO

## CONTENTS

	Page
General Summary of Weather Conditions . . . . .	1

### SURFACE DATA

Table A1.—Monthly values of the Atmospheric Pressure, Air Temperature, Relative Humidity, Bright Sunshine Duration, and Piche Evaporation . . . . .	3
„ A2.—Maximum and Minimum Air Temperatures . . . . .	3
„ A3.—Sky Cover and Rainfall . . . . .	4
„ A4.—Number of Days of Occurrence of Miscellaneous Weather Phenomena. . . . .	5
„ A5.—Number in Hours of Occurrences of Concurrent Surface Wind Speed and Direction Recorded Within Specified Ranges . . . . .	6,7

### UPPER AIR DATA

Table B1.—Monthly Means and Monthly Absolute Highest & Lowest Values of Altitude, Air Temperature & Dew point at Standard and Selected Pressure Surfaces. . . . .	8,9
„ B2.—Mean and Extreme values of The Freezing Level and The Tropopause. The Highest Wind Speed in The Upper Air . . . . .	10
„ B3.—Number of Occurrences of Wind Direction within Specified Ranges and The Mean Scalar Wind Speed at the Standard and Selected Pressure Surfaces . . . . .	11—13

### AGRO-METEOROLOGICAL DATA

Reviews of Agro-meteorological Stations . . . . .	14,15
Table C1.—Air Temperature at 1½ metres above Ground . . . . .	16
„ C2.—Extreme Values of Air Temperature at 1½ metres above Ground, Absolute Minimum Air Temperature at 5 Cms Above Ground over Different Fields. . .	16
„ C3.—(Solar + Sky) Radiation, Duration of Bright Sunshine, Relative Humidity and Vapour Pressure at 1½ Metres Above Gorund, Evaporation and Rainfall . . .	16
„ C4.—Extreme Soil Temperature at Different Depths in Different Fields. . . . .	17
„ C5.—Surface wind. . . . .	17

Note : For explanatory notes on the tables please refer to Volume 21 number 1 (January 1975).

# GENERAL SUMMARY OF WEATHER CONDITIONS

MARCH 1979

Rather Cold spring weather during the first half, dusty hot unstable during the second half.  
Rain was above normal over the north western coast on the 5th day

## PRESSURE DISTRIBUTION

High pressure established over north Africa most the period, except some days during which this high pressure was disturbed by the rapid transit of depressions on the 1st, 2nd, 5th, 6th, 16th, 30th & 31th.

The mean monthly atmospheric pressure over Egypt was generally above normal.

## SURFACE WIND

Surface winds were generally light to moderate SW ly to NW ly at the north of the Country and N ly to NW ly at the south. Fresh to strong winds were experienced at scattered places by the break down of heat waves.

## TEMPERATURE

Rather cold weather prevailed the country most of the first half of the month, but during the second half of the month, the country was intervened by three dusty hot Khamsin waves, the second of them was the severest.

The highest and lowest maximum temperatures were respectively 43.0°C at Dakhla on the 31st and 15.8°C at Mersa Matruh on the 5th. The highest and lowest minimum temperatures were respectively 24.3°C at Kharga on the 22nd and 4.8°C at Asyout on the 10th.

## PRECIPITATION

Rain fell during some days on the northern coast, extended sometimes to Cairo, the rain was generally hight but became heavy on the 5th day, also their monthly quantities were above normal at west of the northern coast.

The maximum total amount was 22.9 mms at Sallum.

& The maximum daily amount was 13.6 mms at Sallum on the 5th.

## OTHER WEATHER PHENOMENA

Scattered early morning mist developed over scattered places of lower Egypt and Cairo. Rising sand was reported at scattered places by the break down of the heat waves.

Chairman ( M. ALI BADRAN)

Board of Directors.

Cairo March 1981

Table A 1.— MONTHLY VALUES OF ATMOSPHERIC PRESSURE, AIR TEMPERATURE,  
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION AND PICHE EVAPORATION

MARCH — 1979

STATION Name	Atmospheric Pressure M.S.L		Air Temperature								Relative Humidity %		Bright Sunshine Duration (Hours)			Pic8e Evgp.	
			Maximum		Minimum		(A-B) 2	Dry Bulb		Wet Bulb		Mean	D.F.				
	Mean	D.F.	(A) Mean	D.F.	(B) Mean	D.F.		Mean	D.F.	Mean	D.F.			Total Aci.	Total Poss.	%	
El Sallum . . . .	1016.1	0.9	23.0	1.6	13.3	2.1	18.1	17.5	1.7	13.0	1.4	60	3	—	—	—	5.4
Mersa Matroh . . .	1016.6	1.1	21.3	1.0	12.0	1.9	16.6	16.5	1.5	12.5	1.0	66	3	259	731.4	68	7.6
Alexandria . . . .	1016.4	0.7	23.1	1.9	12.1	0.9	17.6	17.2	1.3	13.4	1.1	65	1	252	977.4	69	4.0
Port Said . . . .	1016.2	1.1	20.2	—0.1	15.1	1.6	17.6	17.3	0.8	14.1	0.9	69	1	23	131.4	68	5.0
Elrich . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gaza . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo A . P . . .	1015.9	0.7	25.4	1.5	13.2	1.7	19.3	19.0	1.5	13.0	0.9	51	2	—	—	—	11.2
El Fayum . . . .	—	—	26.9	1.3	10.5	0.3	18.7	18.5	0.8	13.2	1.2	54	7	—	—	—	5.6
El Minia . . . .	1015.8	0.5	27.6	1.8	9.6	1.7	18.6	18.3	1.7	12.6	1.5	52	4	283.4	371.8	76	7.7
Assuit . . . .	1016.0	1.2	27.3	0.7	11.0	0.3	19.1	19.3	0.8	11.1	0.1	34	1	—	—	—	11.4
Luxor . . . .	1014.1	0.6	30.7	1.2	12.5	1.7	21.6	21.4	1.3	13.4	1.1	38	3	—	—	—	7.6
Aswan . . . .	1013.8	0.5	31.0	0.7	15.1	1.4	23.0	23.0	1.3	12.0	0.8	29	—4	316.5	372.4	85	18.
Sewa . . . .	1016.1	0.3	26.4	1.4	11.9	3.2	19.1	19.1	2.4	12.4	2.0	46	1	263.4	371.7	71	7.3
El Baharia . . . .	1015.7	0.2	27.4	1.9	11.0	1.9	19.2	19.4	2.3	12.0	1.5	40	—6	—	—	—	8.2
El Farafra . . . .	1017.0	0.5	28.5	2.4	11.4	2.9	19.9	19.8	2.5	11.3	1.6	32	—0	—	—	—	10.9
El Dakha . . . .	1015.9	0.5	29.9	2.3	10.1	1.3	20.0	20.1	2.1	11.6	1.3	34	1	—	—	—	11.4
I Kharga . . . .	1014.4	—0.7	30.8	2.1	14.0	3.1	22.4	22.5	3.0	14.1	3.2	42	11	306.8	372.4	82	12.6
Tor . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
El Huurgada . . . .	1014.4	0.9	25.2	1.6	15.5	3.0	20.3	20.8	2.1	13.9	0.7	42	—8	309.8	371.9	83	13.4
El Quseir . . . .	1013.8	0.1	25.5	0.9	17.8	1.5	21.6	21.7	1.2	15.2	1.0	46	—3	—	—	—	7.9

TABLE A2.—MAXIMUM AND MINIMUM AIR TEMPERATURE

MARCH— 1979

Station	Maximum Temperature °C								Grass Min. Temp.	Minimum Temperature °C									
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	D. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
El-Sallum . . . . .	33.3	29	16.2	5	08	04	00	00	00	11.6	—	20.6	29	9.4	8	02	00	00	00
Mersa Matroh . . . .	32.9	21	15.8	5	06	03	00	00	00	11.0	—	17.0	22	7.6	1	08	00	00	00
Alexandria . . . . .	35.4	30	18.6	7	08	02	01	00	00	10.2	—	16.9	31	7.2	4	07	00	00	00
Port Said . . . . .	30.0	17	16.7	8	03	00	00	00	00	14.7	—	18.7	31	11.4	10	00	00	00	00
ElArish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gaza . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo . . . . . (A)	35.6	22	19.0	8	11	08	01	00	00	—	—	19.5	21	10.0	14,19	00	00	00	00
Fayoum . . . . .	36.9	31	21.0	8	17	07	02	00	00	7.0	—	15.3	23	5.8	8	12	00	00	00
Minya . . . . . (A)	37.2	31	19.4	1	19	10	03	00	00	7.0	—	16.0	23	5.0	10	19	00	00	00
Assyout . . . . . (A)	39.8	31	19.5	8	19	09	03	00	00	10.1	—	18.8	31	4.8	10	13	01	00	00
Luxor . . . . . (A)	40.4	31	21.4	8	27	16	08	01	00	6.7	—	18.6	24	6.0	10	06	00	00	00
Aswan . . . . . (A)	40.4	31	21.7	9	27	18	06	01	00	—	—	21.0	24,31	9.1	10	02	00	00	00
Siwa . . . . .	37.1	22	19.2	1	14	07	03	00	00	9.9	—	19.8	30	5.9	10	11	00	01	00
Bahariya . . . . .	39.3	31	19.4	1	18	09	04	00	00	10.8	—	18.6	23	6.0	10	13	00	00	00
Farafra . . . . .	41.2	31	20.5	1	21	10	03	01	00	9.6	—	19.5	23	6.3	11	13	00	00	00
Dakhla . . . . .	43.0	31	20.8	8	22	14	06	01	00	9.9	—	18.4	24	4.8	11,14	15	02	00	00
Kharga . . . . .	42.1	31	22.0	9	26	16	08	01	00	11.1	—	24.3	22	5.4	10	06	00	00	00
Tor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . . . .	31.7	22	20.9	8	13	01	00	00	00	—	—	22.0	24	10.8	10	00	00	00	00
Quseir . . . . .	30.2	30	21.4	8	16	01	00	00	00	14.0	—	22.3	22	14.8	11	00	00	00	00

Table A 3.—SKY COVER AND RAINFALL.

MARCH — 1979

Station Name	Mean Sky Cover (Oct.)					Rainfall mm.s.															
	60		06		12		18		Daily		Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
	U.T.	U.T.	U.T.	U.T.	U.T.	Mean	Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50						
El-Sallum . . . .	3.5	2.1	4.5	3.0	3.4	3.4	22.9	13.1	13.6	5	00	07	03	01	01	00	00				
Mersa Matruh (A)	2.9	4.4	4.3	3.0	3.6	3.6	13.0	1.8	10.3	5	00	04	02	1	00	00	00				
Alexandria . . (A)	2.8	4.3	4.5	3.5	3.7	3.7	6.0	—6.4	4.1	7	00	05	01	0	01	00	00				
Port Said . . (A)	2.6	2.8	3.7	2.5	2.8	2.8	5.1	—3.6	2.4	25	01	06	02	00	00	00	00				
El Arish . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Ghazza . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Tanta . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Cairo A . P . .	1.4	2.4	3.5	1.7	2.3	2.3	4.3	1.9	4.3	1	—	00	01	01	00	00	00	00			
El-Fayom . . . .	—	1.6	3.0	1.6	—	—	3.5	3.0	3.5	1	01	01	01	00	00	00	00				
El-Minia . . . .	0.8	1.8	2.7	2.2	1.9	1.9	TR	—	TR	1,5	02	00	00	00	00	00	00				
Assuit . . . . .	0.5	1.2	1.7	1.1	1.1	1.1	TR	—	TR	1	01	00	00	00	00	00	00				
Luxor . . . . .	0.7	1.2	1.6	1.2	1.2	1.2	TR	—	TR	1	01	00	00	00	00	00	00				
Asawan . . . . .	0.4	1.0	1.2	0.5	0.7	0.7	0.0	0.0	—	—	03	00	00	00	00	00	00				
El-SEWA . . . .	1.1	1.9	2.6	1.8	1.8	1.8	2.8	2.6	1.5	6	00	02	02	00	00	00	00				
El-Bahaira . . . .	0.6	1.4	2.8	1.5	1.6	1.6	1.5	1.5	1.5	1	01	01	01	00	00	00	00				
El-Farafra . . . .	—	1.3	2.6	1.7	—	—	TR	—	TR	1,5	02	00	00	00	00	00	00				
El-Dakhla . . . .	0.1	1.0	1.1	0.7	0.7	0.7	0.0	0.0	—	—	00	00	00	00	00	00	00				
Kharga . . . . .	0.5	1.5	1.2	0.9	1.0	1.0	TR	0.3	TR	1	01	00	00	00	00	00	00				
Tor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
El-Hurghada . . .	1.2	1.6	1.9	2.0	1.8	1.8	0.1	—	TR	1	00	01	00	00	—	—	—				
El-Quseir . . . .	0.4	1.4	1.5	0.9	1.1	1.1	0.0	—	0.1	1	00	00	00	00	00	00	00				

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

MARCH— 1979

Station	Precipitation		Frost	Thunderstorm	Mist	Tog	Haze	Thick Faze	Dust	Sandstorm	Calo	Clear	Cloudy	
	Rain	Snow												
El-Sallum . . . . .	06	00	00	00	00	00	01	05	00	01	00	67	02	
Mersa Matruh . . . . .	04	00	00	00	05	00	03	11	00	01	00	04	03	
Al exandria . . . . .	08	00	00	00	01	01	01	00	00	00	00	06	01	
Fort Said . . . . .	07	00	00	01	01	00	01	02	00	00	00	10	01	
El Arish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	
Chazza . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cairo A P . . . . .	01	00	00	00	04	02	10	05	00	01	00	12	00	
El-Fayoum . . . . .	01	00	00	00	00	00	02	02	00	00	00	15	03	
El-Minya . . . . .	00	03	00	00	06	00	19	12	00	00	00	20	01	
Assiout . . . . .	00	00	00	00	00	00	04	08	00	01	00	25	00	
Luxor . . . . .	00	00	00	00	00	00	18	11	00	01	00	25	00	
Aswan . . . . .	00	00	00	00	00	00	04	09	00	00	00	27	00	
Sewa . . . . .	02	00	00	00	03	00	05	07	00	00	00	19	01	
El-Bahara . . . . .	02	00	00	00	00	00	00	03	00	00	00	23	01	
El-Farafra . . . . .	00	00	00	00	00	00	00	02	03	00	02	00	04	
El-Dakhlia . . . . .	00	00	00	00	00	00	01	10	00	00	00	29	00	
El-Kharga . . . . .	00	00	00	00	00	00	01	06	00	00	00	24	00	
Tor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	
El-Hurghada . . . . .	02	00	00	00	00	00	00	07	00	00	00	19	01	
El-Quseir . . . . .	00	00	00	00	00	00	00	02	00	00	00	23	00	

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE  
WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGE

MARCH — 1979

Station Name	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing From the ranges of directions indicated												
					345 /014	015 /044	045 /074	075 /104	105 /134	135 /164	165 /194	195 /224	225 /254	255 /284	285 /314	315 /344	All directions
Sallum . . . . .	42	00	00	1—10	16	09	60	42	37	23	08	09	16	29	132	55	436
				11—27	02	00	16	31	18	01	03	23	27	27	70	48	266
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	18	09	76	73	55	24	11	32	43	56	202	103	702
Mersa Matruh . . .	24	00	00	1—10	10	10	33	39	28	22	33	22	46	47	25	14	329
				11—27	01	12	18	36	32	12	37	15	12	23	161	32	391
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	11	22	51	75	60	34	70	37	58	70	186	46	720
Alexandria . . . (A)	00	00	00	1—10	35	77	68	54	56	24	22	14	08	28	49	36	471
				11—27	06	24	11	04	01	02	00	02	10	57	118	38	273
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	41	101	79	48	57	26	22	16	18	85	167	74	744
Cairo A. P . . . (A)	21	23	00	1—10	47	87	59	42	20	06	10	13	25	71	61	52	516
				11—27	05	29	42	09	12	03	06	18	15	30	30	08	207
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	52	116	101	51	32	09	16	31	40	101	91	60	700
El Fayoum . . . . .	31	11	00	—10	121	186	75	13	10	10	27	33	57	47	48	57	695
				11—27	00	01	09	00	00	00	00	01	01	01	04	01	18
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	121	187	84	13	10	10	27	34	58	48	52	58	702
El Minya . . . . .	07	03	00	1—10	236	43	07	04	06	47	19	11	08	17	28	109	538
				11—27	138	04	00	00	00	06	09	00	01	03	10	28	199
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	60	00	00	00	00	00	00	00
				All speeds	374	47	07	04	06	53	28	11	09	20	38	137	734
Assyout . . . . (A)	85	00	00	1—10	78	23	02	05	09	13	26	30	13	28	84	118	429
				11—27	57	02	00	00	01	00	09	04	00	01	31	125	230
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	135	25	02	05	10	13	35	34	13	29	115	243	659
Luxor	01	00	00	1—10	63	70	52	32	19	26	58	50	19	52	73	173	687
				11—27	04	00	01	01	00	00	00	00	00	00	00	00	00
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All Speeds	67	70	53	33	19	26	58	50	19	52	73	223	743

**Table A 5. (contd.)—NUMBER IN HOURS OF OCCURRENCE OF CONCURRENT SURFACE  
WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGE  
MARCH — 1979**

Station Name	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed	Number in hours of occurrences of wind blowing from the ranges of directions indicated													All Directions
					345°	015°	045°	075°	105°	135°	163°	195°	225°	255°	285°	315°		
					/	/	/	/	/	/	/	/	/	/	/	/		
Aswan . . . (A) . . .	00	00	00	1-10 11-27 28-47 ≥ 48 All Speeds	228	80	11	02	06	04	09	01	02	08	23	94	468	
					148	29	01	00	00	00	00	01	00	00	10	87	276	
					00	00	00	00	00	00	00	00	00	00	00	00	60	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					376	109	12	02	06	04	09	02	02	08	33	181	744	
Sewa . . . . .	35	00	00	1-10 11-27 28-47 ≥ 48 All Speeds	60	99	35	25	13	20	46	96	66	25	15	25	525	
					06	37	08	05	19	03	02	35	44	17	03	05	184	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					66	136	43	30	32	23	48	131	110	42	12	39	739	
El-Dakhla . . . .	14	16	00	1-10 11-27 28-47 ≥ 48 All Speeds	32	40	40	45	38	24	36	33	44	77	101	104	630	
					15	04	05	00	00	00	00	00	01	05	15	55	160	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					47	44	45	45	38	24	36	33	45	82	110	159	714	
EL-Kharga . . . .	03	00	00	1-10 11-27 28-47 ≥ 48 All Speeds	172	64	19	08	11	26	21	08	17	22	32	93	493	
					133	39	00	00	00	00	00	00	00	02	00	12	62	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					60	00	00	00	00	00	00	00	00	00	00	00	00	
					365	103	19	08	11	26	21	08	19	22	44	155	741	
EL-Hurgada . . . .	00	60	00	1-10 11-27 28-47 ≥ 48 All Speed	28	21	13	11	09	31	02	03	02	48	138	23	329	
					66	11	01	00	00	00	00	00	00	00	21	128	188	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					94	32	14	11	09	31	02	03	02	69	266	211	744	
EL Quseir . . . .	02	00	00	1-10 11-27 28-47 ≥ 48 All speed	82	20	15	09	06	17	15	08	08	64	164	190	598	
					132	29	00	00	00	00	00	00	00	00	16	57	234	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					00	00	00	00	00	00	00	00	00	00	00	00	00	
					214	49	15	09	06	17	15	08	08	64	180	157	742	

## UPPER AIR CLIMATOLOGICAL DATA

Table B 1. —MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER  
VALUES OF ALTITUDE AIR TEMPERATURE & DEW POINT AT  
STANDARD AND SELECTED PRESSURE SURFACES

MARCH -- 1979

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mores Mabruk 0000 U.T.	Surface	30	1013* m.b.	1020m.b.	1005m.b.	30	14.8	22.0	9.8	30	8.4
	1000	30	137	198	71	30	14.6	21.8	10.0	30	8.5
	850	30	1500	1562	1438	30	9.3	21.2	1.2	30	-1.4
	700	30	3084	3156	2991	30	0.4	6.4	-7.4	29	-13.6
	600	30	4306	4391	4191	30	-7.3	-2.5	-14.3	30	-20.9
	500	30	5701	5799	5556	30	-17.2	-13.3	-26.7	29	-30.7
	400	30	7337	7457	7148	30	-29.0	-24.7	-36.4	28	-41.4
	300	27	9230	9485	9073	27	-44.2	-38.5	-52.5	26	-54.9
	250	27	10532	10799	10237	27	-51.8	-44.9	-59.7	26	-59.5
	200	26	11966	12226	11742	26	-56.5	-48.0	-62.7	26	-65.9
	150	25	13751	13942	13258	25	-59.4	-55.0	-67.7	12	-69.6
	100	23	16251	16445	16022	23	-65.7	-59.4	-71.3	—	—
	70	21	18491	18612	18189	21	-65.9	-59.2	-71.1	—	—
	60	15	19377	19590	19170	15	-64.1	-58.9	-68.5	—	—
	50	15	20466	20692	20272	15	-61.8	-57.7	-65.9	—	—
	40	11	21913	22300	21660	11	-58.9	-54.0	-62.7	—	—
	30	9	23680	23931	23497	9	-55.6	-52.1	-59.7	—	—
	20	5	26403	26552	26211	5	-50.7	-49.6	-51.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Halwan 0000 U.T.	Surface	31	1000*m.b.	1002m.b.	994m.b.	31	15.2	23.2	10.8	31	12.6
	1000	31	136	183	998	31	13.4	21.4	10.8	15	-07.2
	850	31	1504	1558	1450	31	10.4	23.3	-02.0	31	-02.7
	700	31	3097	3179	2987	31	01.3	07.4	-07.0	31	-11.9
	600	31	4324	4421	4188	31	-05.6	-01.3	-11.8	31	-20.5
	500	31	5732	5879	5516	31	-14.6	-08.4	-22.0	31	-28.1
	400	31	7384	7533	7102	31	-25.7	-18.5	-32.9	31	-39.0
	300	28	9402	9558	9173	28	-40.8	-33.7	-49.4	28	-49.7
	250	28	10620	10798	10377	28	-48.7	-41.9	-56.0	28	-57.2
	200	28	12062	12245	11710	28	-53.7	-44.1	-59.9	29	-62.2
	150	28	13902	14070	13589	28	-58.5	-53.2	-65.2	19	-66.8
	100	26	16440	16543	16158	26	-65.3	-58.1	-73.2	1	-75.9
	70	20	18558	18737	18390	20	-66.8	-58.3	-74.3	—	—
	60	14	19526	19720	19380	14	-64.5	-57.7	-70.6	—	—
	50	14	20609	20824	20506	14	-62.8	-56.9	-68.4	—	—
	40	10	22064	22330	21940	10	-59.8	-52.5	-64.1	—	—
	30	10	23792	24066	23634	10	-57.8	-53.3	-59.9	—	—
	20	9	24377	26681	26232	9	-54.1	-50.1	-56.3	—	—
	10	1	30858	—	—	1	-46.7	--	—	—	—
Ariwa 0000 U.T.	Surface	30	993m.b.	997m.b.	989m.b.	30	17.9	26.0	11.2	30	3.0
	1000	30	132	168	78	—	—	—	—	—	—
	850	30	1523	1566	1492	30	14.8	22.2	5.2	30	-3.3
	700	30	3140	3240	3052	30	5.6	10.2	1.4	30	-11.6
	600	30	4387	4452	4285	31	-2.0	2.9	-9.2	30	-17.9
	500	30	5743	5893	5673	30	-11.3	-7.5	-16.9	30	-24.6
	400	30	7490	7578	7303	30	-23.0	-19.2	-30.0	30	-32.6
	30	29	9135	9658	9320	29	-38.3	-33.7	-46.1	29	-46.9
	250	29	10776	10991	10541	29	-46.1	-41.3	-55.8	29	-54.4
	200	29	12228	12359	11985	29	-54.5	-48.1	-61.0	27	-62.3
	160	29	14063	14156	13795	29	-62.7	-58.7	-67.2	1	-69.0
	100	29	16458	16600	16282	29	-74.0	-80.1	-64.6	—	—
	70	16	18540	18687	18422	15	-74.4	-66.0	-83.7	—	—
	60	6	19532	19620	19400	6	-70.5	-52.6	-73.9	—	—
	50	6	20584	20671	20490	6	-66.4	-60.6	-68.5	—	—
	40	3	22070	22080	22060	3	-60.6	-58.0	-62.4	—	—
	30	3	23784	23852	23728	3	-56.4	-55.3	-67.3	—	—
	20	2	26100	26472	26329	2	-52.0	-51.4	-52.6	—	—
	10	1	31032	—	—	1	-64.0	—	—	—	—

N = The number of cases the element has been observed during the month.

\* The atmospheric pressure corrected to the elevation of the radiosonde station.

## UPPER AIR CLIMATOLOGICAL DATA

Table B 1.— MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER  
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT  
STANDARD AND SELECTED PRESSURE SURFACES

MARCH — 1979

Station	Pressure Surface (Millibar)	Altitude of pressure surface (gpm.)				Temperature (°C)				Dew point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marrat Matriah 1200 U.T.	Surface . . .	26	1013 mb	1021 mb	1006 mb	26	19.6	28.2	14.2	26	10.1
	1000 . . .	26	136	201	78	26	18.6	27.8	13.2	26	8.3
	850 . . .	26	154	1555	1454	26	19.1	22.2	2.2	26	-2.5
	700 . . .	26	3096	3240	3028	26	1.5	5.7	-6.7	26	-14.2
	600 . . .	26	4359	4488	4235	26	-6.3	-2.0	-12.7	26	-21.9
	500 . . .	26	5723	5926	5609	26	-15.9	-9.0	-27.3	26	-29.9
	400 . . .	25	7369	7614	7178	25	-28.0	-22.2	-45.9	24	-41.4
	300 . . .	24	9371	9669	9020	24	-42.4	-34.7	-53.2	23	-55.2
	250 . . .	24	10584	10905	10202	24	-49.5	-38.5	-58.1	23	-62.2
	200 . . .	24	12029	12357	11632	24	-54.7	-46.5	-61.3	17	-65.4
	150 . . .	22	13850	14211	13566	22	-57.9	-52.0	-64.0	11	-69.0
	100 . . .	20	16369	16711	16036	20	-64.1	-57.9	-68.0	—	—
	70 . . .	18	18551	18903	18279	18	-65.0	-59.2	-68.3	—	—
	60 . . .	11	19569	19870	19450	11	-64.1	-58.9	-68.4	—	—
	50 . . .	11	20649	20973	20523	11	-60.9	-56.7	-66.3	—	—
	40 . . .	7	22071	22220	21800	7	-56.6	-54.0	-59.0	—	—
	30 . . .	6	23861	23980	23711	6	-53.0	-50.0	-56.7	—	—
	20 . . .	2	26572	26617	26527	2	-44.2	-42.1	-46.7	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Holvian 1200 U.T.	Surface . . .	31	999* mb.	1004* m.b.	993 m.b.	31	24.5	35.1	18.6	31	03.2
	1000 . . .	31	126	177	93	9	22.9	31.8	19.0	9	02.9
	850 . . .	31	1516	1567	1461	31	12.4	25.1	03.3	31	-03.1
	700 . . .	30	3117	3200	3026	30	03.0	11.0	-04.4	30	-13.4
	600 . . .	29	4352	4460	4234	29	-94.2	02.0	-10.3	29	-21.1
	500 . . .	29	5767	5907	5621	29	-12.9	-07.2	-19.0	29	-28.2
	400 . . .	29	7433	7594	7250	29	-24.1	-19.8	-31.2	29	-38.0
	300 . . .	29	9472	9640	9254	29	-38.3	-34.0	-45.4	29	-50.1
	250 . . .	29	1074	10896	10450	29	-46.4	-39.6	-52.3	29	-57.2
	200 . . .	29	12162	12346	11884	29	-52.2	-46.0	-59.9	29	-60.4
	150 . . .	29	14028	14204	13734	27	-55.3	-49.0	-65.2	23	-65.5
	100 . . .	27	16584	16779	16367	24	-60.7	-52.7	-72.0	8	-68.2
	70 . . .	24	18800	19001	18580	19	-59.5	-53.7	-69.1	—	—
	60 . . .	19	19735	20490	19120	15	-58.0	-51.2	-66.5	—	—
	50 . . .	15	20918	21190	20620	15	-84.6	-47.9	-62.5	—	—
	40 . . .	11	22472	22680	22200	11	-49.3	-33.9	-52.7	—	—
	30 . . .	10	23322	24695	24033	10	-42.2	-28.4	-45.3	—	—
	20 . . .	8	27118	27309	26803	8	-35.2	-20.4	-39.9	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface . . .	31	992 mb.	996 mb.	987 mb.	31	30.3	40.8	21.8	31	1.1
	1000 . . .	31	123	157	72	—	—	—	—	—	—
	850 . . .	31	1537	1566	1507	31	17.3	26.4	7.8	31	-7.7
	700 . . .	31	3165	3230	3089	31	7.6	3.0	-2.2	31	-15.7
	600 . . .	31	4419	4496	4317	31	1.5	4.4	-6.1	31	-21.5
	500 . . .	31	5855	5948	5719	31	-9.5	-5.0	-18.5	31	-28.2
	400 . . .	31	7547	7742	7363	31	-20.9	-17.6	-27.3	31	-37.0
	300 . . .	31	9608	9732	9420	31	-35.9	-31.7	-39.5	31	-49.9
	250 . . .	31	10851	10989	10620	31	-44.3	-39.7	-49.5	31	-57.3
	200 . . .	31	12323	12451	12063	31	-52.3	-48.7	-57.4	31	-64.2
	150 . . .	31	14142	14292	13905	31	-61.8	-56.0	-71.1	7	-61.9
	100 . . .	31	16589	16738	16402	31	-71.5	-64.0	-78.5	—	—
	70 . . .	29	18683	18824	18539	23	-72.7	-63.6	-80.0	—	—
	60 . . .	17	19617	19830	19300	17	-67.0	-62.6	-73.6	—	—
	50 . . .	17	20873	20841	20603	17	-63.7	-57.0	-68.3	—	—
	40 . . .	11	22112	22350	21080	11	-58.6	-52.0	-66.3	—	—
	30 . . .	11	23938	24171	23786	11	-51.6	-44.7	-56.6	—	—
	20 . . .	4	26595	26746	26145	4	-47.3	-42.0	-52.0	—	—
	10 . . .	1	31455	—	—	1	-36.1	—	—	—	—

N = The Number of cases the element has been observed during the month.

\* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE;  
THE HIGHEST WIND SPEED IN THE UPPER AIR

MARCH — 1979

Station	Freezing Level									First Tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest							
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in Knots	
0000 U.T.	(N)	(N)	(N)							(N)	(N)	(N)											
	Mersa Matruh(A)	3086 (30)	703 (30)	-13.2 (30)	3960	634	-12.8	1730	820	-3.0	1782 (25)	213 (25)	-56.5 (25)	17720	79	-73.6	9060	302	-48.9	6210	456	240	86
	Helwan	3287 (31)	688 (31)	-12.0 (31)	4200	614	-16.8	1220	878	-2.2	12048 (21)	210 (21)	-53.7 (21)	18000	77	-70.2	8760	317	-38.5	12785	—	320	149
Aswan	(A)	4093 (30)	616 (30)	-16.4 (30)	4760	577	-14.5	2370	767	-8.8	16389 (11)	96 (11)	-71.6 (11)	29150	53	-67.8	14500	139	-66.7	11050	239	280	130
	1200 U.T.	(N)	(N)	(N)						(N)	(N)	(N)											
	Mersa Matruh(A)	3265 (26)	688 (26)	-14.1 (26)	4110	630	-4.7	1820	818	-8.7	11554 (23)	221 (23)	-55.5 (23)	16570 (23)	97	-64.7	7140	408	-31.3	7200	415	355	90
	Helwan	3518 (29)	670 (29)	-13.6 (29)	4780	578	-25.9	1800	816	-2.9	12790 (24)	190 (24)	-55.5 (24)	17220 (24)	88	-74.1	9900	275	-48.8	12010	207	310	148
Aswan	(A)	4393 (31)	604 (31)	-20.9 (31)	5220	547	-24.2	2800	731	-6.8	16414 (22)	105 (22)	-72.4 (22)	18100 (22)	72	-74.3	13100	179	-63.3	10400	262	260	135

N = Number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES  
MERSA MATROUH 0000 U.T. MARCH 1979

Time	Pressure Surface Millibar.	Wind between specified ranges of direction (000°—360°).																		Number of Calm winds	Total Number of Observations T.N.	Mean scalar wind speed knots						
		345°		015°		045°		075°		105°		135°		165°		195°		225°		255°		285°		315°				
		N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	(ft)	N	(ft)					
0000 U.T.	Surface of Station	1	3	0	—	2	6	3	7	5	9	2	6	2	10	2	6	3	8	5	8	4	16	0	—	1	30	9
	1000	0	—	2	10	2	12	2	18	4	10	2	14	2	20	3	10	2	20	5	18	4	21	1	3	0	29	15
	850	0	—	2	12	1	13	1	9	0	—	3	18	4	28	2	27	2	27	7	22	7	19	0	—	0	29	21
	700	1	6	0	—	0	—	0	—	0	—	1	15	3	34	9	92	9	26	2	26	1	32	0	—	0	29	27
	600	0	—	0	—	0	—	0	—	0	—	0	—	2	29	7	33	13	32	6	28	0	—	0	—	0	28	33
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	48	10	41	6	33	1	18	0	—	0	25	41
	400	1	19	0	—	0	—	0	—	0	—	0	—	0	—	3	32	4	46	2	22	0	—	0	—	0	10	34
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	29	1	8	0	—	0	—	0	2	18
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	1	23	0	—	0	2	34
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	23	0	—	0	—	0	1	23
	150	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	2	10	2	12	1	11	3	11	0	—	1	16	2	10	0	—	0	—	1	2	2	18	5	15	0	26	14
	1000	0	—	2	12	2	14	3	13	0	—	1	23	2	12	0	—	1	4	2	24	8	26	6	18	0	26	19
	850	0	—	0	—	0	—	1	10	2	8	1	21	2	20	1	11	6	20	10	19	2	32	1	21	0	26	19
	700	0	—	0	—	0	—	0	—	0	—	1	8	0	—	2	18	8	31	11	27	4	23	0	—	0	26	26
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	34	6	29	15	32	2	37	0	—	0	25	32
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	47	7	46	11	43	3	25	0	—	0	22	41
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	32	5	39	3	32	0	—	0	10	36
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	1	34	1	25	0	—	0	3	22
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	7	1	31	0	—	0	—	0	2	19
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	31	0	—	0	0	31
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the wind has been observed from the range of direction during the month.

T.N = The total number of cases the wind has been observed for all directions during the month.

TABLE B 3.— NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES  
MARCH — 1979

Pressure surface (millibar)	Wind between specified ranges of direction (000—360)°													Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)											
	345		015		045		075		105		135		165		195		225		255		285						
	/	014	/	044	/	074	/	104	/	134	/	164	/	194	/	224	/	254	/	284	/	314	/	344			
	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m					
Surface	3	04	2	11	15	07	1	07	2	06	0	—	0	—	0	—	6	—	3	04	2	04	3	06	0	31	6
1000	0	—	1	13	8	09	1	07	0	—	0	—	0	—	0	—	0	—	2	04	2	04	1	10	0	15	8
850	6	18	3	18	3	09	1	11	1	08	0	—	0	—	3	05	1	10	2	01	6	20	5	21	0	31	15
700	7	27	1	07	1	18	0	—	0	—	0	—	0	—	1	09	0	—	2	36	5	36	14	25	0	31	26
600	6	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	50	11	37	13	34	0	31	36		
500	3	43	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	62	11	36	41	38	0	30	41
400	2	45	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	12	43	13	54	0	27	22		
300	3	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	58	7	62	0	19	56		
250	1	67	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	86	6	52	6	44	0	14	52
200	1	56	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	72	7	53	0	13	60		
150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	61	9	69	0	10	68		
100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	1	81	0	4	41		
70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	73	1	34	0	2	48		
60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	54		
50	0	—	0	—	0	—	0	—	1	09	0	—	0	—	0	—	0	—	0	—	0	—	0	1	9		
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Surface	2	69	2	10	6	08	0	—	0	—	0	—	1	06	1	07	3	07	4	08	8	09	4	06	0	31	8
1000	0	—	0	—	4	09	1	14	0	—	0	—	0	—	0	—	3	08	0	—	1	07	0	31	9		
850	7	13	1	06	4	08	1	19	1	04	1	05	0	—	1	09	3	30	2	29	8	14	0	31	14		
700	4	23	3	23	0	—	0	—	0	—	0	—	1	06	0	—	1	75	2	24	5	29	13	21	0	30	24
600	2	28	1	48	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	22	10	36	13	27	0	28	31
500	0	—	1	57	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	45	18	36	0	28	40
400	3	18	1	99	0	—	0	—	0	—	0	—	0	—	0	—	1	78	9	53	15	53	0	26	52		
300	5	50	0	—	0	—	1	38	0	—	0	—	0	—	0	—	1	111	8	68	9	59	0	24	61		
250	2	76	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	75	12	53	0	19	62		
200	2	94	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	90	12	71	0	17	77		
150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	69	7	70	0	12	96		
100	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	59	2	36	0	6	44		
70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	37	0	2	37		
60	0	—	1	22	0	—	0	—	0	—	0	—	0	—	0	—	12	0	—	0	—	1	07	0	2	24	
50	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	0	2		
40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	07	1	24	0	—	2		
30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0		
20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0		
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the wind has been observed within the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B3—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.  
ASWAN -- MARCH 1979

Station	Pressure Surface (Milibar)	Wind between ranges of direction (000°—360°)														Number of Calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)									
		345		015		045		075		105		135		165		195		225		255		285					
		/	614	/	044	/	074	/	104	/	134	/	164	/	194	/	224	/	254	/	284	/	314	/	344		
8000 U.T.	Surface	12	10	4	7	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	9	9	10	0	30	9	
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	850	8	16	5	19	1	12	0	—	0	—	0	—	0	—	0	—	0	—	8	14	8	19	0	30	16	
	700	1	14	0	—	2	16	0	—	1	7	0	—	0	—	0	—	2	12	3	17	3	21	7	17	0	
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	23	4	27	7	17	2	24	0	
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	41	9	30	6	31	2	23	0	
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	66	7	39	8	37	0	18	30	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	132	8	46	6	57	0	0	17	
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	82	8	54	0	0	15	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	81	2	75	0	0	10	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	72	7	68	0	—	0	0	8	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	37	1	38	0	0	2	
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface	15	11	4	10	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	2	8	8	14	1	31	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—		
	850	8	10	5	15	3	12	0	—	1	5	0	—	0	—	0	—	0	—	1	13	4	8	9	15	0	
	700	2	13	2	7	1	19	0	—	0	—	0	—	0	—	1	14	3	25	2	15	8	22	12	16	0	
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	21	9	31	10	22	5	22	31	
	500	6	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	30	14	43	12	33	2	27	31	
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	69	15	48	10	40	0	0	28	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	21	71	6	47	0	—	27	
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	62	19	91	4	63	2	64	0	—	16	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	80	13	84	4	79	1	98	0	—	19	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	64	2	53	0	—	0	—	11	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	48	0	—	0	—	0	—	4	
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

## MONTHLY REVIEW OF AGROMETEOROLOGICAL STATIONS

### MERSA MATRUH — MARCH 1979

The mean daily air temperature and relative humidity were above normal. The total monthly rainfall was 13.0mmms. while the normal is 11.7mmms.

The maximum temperatures were below normal most of the month, except for three heat waves in the periods 16th (19th - 22th) and (28th - 31th). The maximum temperatures ranged between 15.8°C on the 5th and 32.9°C on the 21st. The minimum temperatures ranged between 8.3°C on the 4th and 17.0°C on the 22nd.

The mean daily actual sunshine duration and wind speed at 1.5met. height were below average respectively by 0.3 hour and 0.1met. / sec.

The highest maximum soil temperatures were at all depths above those of March 1978 with departures between 1.3°C at 200cm. depth and 6.6°C at 2cm. depth. The lowest minimum soil temperatures were at all depths above those of March 1978 with departures between 0.8°C at 50cm. depth and 1.7°C at 100cm. and 200cm. depths.

### TAHRIR — MARCH 1979

The mean daily air temperatures, relative humiday and total monthly rainfall were all nearly equal to normal.

The month was distinguished by four intense heat waves in the periods 6th (16th - 17th), (20th-22nd) and (29th-31st). Apart from these, the maximum temperatures were around or slightly below normal. The maximum temperatures ranged between 20.0°C on the 5th and 37.4°C on the 22nd. The minimum temperatures ranged between 5.2°C on the 28th and 15.2°C on the 31st.

The mean daily actual sunshine duration, wind speed at 1.5met. height and pan evaporation were all less than normal respectively by 0.5 hour, 0.7 met./sec. and 1.16 mmms.

The highest maximum soil temperatures were above normal with departures between 0.2°C at 300 cms depth and 7.4°C at 2 cms depth. The lowest minimum soil temperatures were slightly above normal with departures between 0.1°C at 300 cms depth and 0.8°C at 2 cms, 10 cms & 50 cms depth.

### BAHTIM — MARCH 1979

The mean daily air temperature was above normal by 1.2°C. The mean daily relative humidity was above normal by 2%. The total monthly rain fall was 4.1mm while the normal is 2.8mm.

The month was intervened by three warm waves in the periods (15th-17th), (20th-22th) & (29th-31th) and five cold waves in the periods 5th, (7th-11th), (13th-14th), (18th-19th) & (23th-28th). The maximum temperatures ranged between 18.4°C on the 8th and 36.5°C on the 22th. The minimum temperatures ranged between 4.8°C on both the 14th, 15th and 13.3°C on the 31th.

The mean daily actual sunshine duration and pan evaporation were below normal by 0.1 hour and 1.13mm respectively. The mean daily wind speed at 1.5met. height was below normal by 0.5met./sec.

The highest maximum soil temperatures were above normal with departures between 0.2°C at 300cms depth and 7.4°C at 2cms depth. The lowest minimum soil temperatures were slightly above normal with departures between 0.1°C at 300cms depth and 0.8°C at 2cms, 10cms & 50cms depth.

#### ASSYOUT — MARCH 1979

The mean daily air temperature and relative humidity were slightly above those of last March. The total monthly rainfall was 1.4mms. while last March was rainless.

Changeable temperature prevailed all over the month. The maximum temperatures ranged between 20.3°C on the 8th and 37.6°C on the 31st. The minimum temperatures ranged between 5.2°C on the 9th and 16.2°C on the 23rd and the 31st.

The mean daily actual sunshine duration and pan evaporation were slightly below those of last March.

The highest maximum soil temperatures were above those of last March with departures between 0.6°C at 10cms. and 300cms. depths and 4.6°C at 5cms. depth. The lowest minimum soil temperatures were around those of last March with departures between —1.2°C at 5cms. depth and +1.8°C at 10cms. depth.

#### KHARGA — MARCH 1979

The mean daily air temperatures was higher than normal by 2.1°C. The mean daily relative humidity was lower than normal by 1%. The month was rainless as usual.

Temperatures were changeable. The month was intervened by four heat waves in the periods; (1s-6th), (15th-17th), (20th-24th) & (28th-31th). And two cold waves in the periods; (7th-14th), (25th-27th). The maximum temperatures ranged between 22°C on the 9th and 42.1°C on the 31. The minimum temperatures ranged between 5.4°C on the 10th and 24.3°C on the 22th.

The mean daily actual sunshine duration, wind speed at 1.5met. height and pan evaporation were less than average by 0.6 hour, 0.9met./Sec and 0.51 mms respectively.

The highest maximum soil temperatures were above normal with departures between 0.1°C at 300 cms depth and 6.4°C at 10cms depth. The lowest minimum soil temperatures were around with departures between —1.0°C at 5.10cms depth, 0.7°C at 100cms depth.

**Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND  
MARCH — 1979**

STATION	Air Temperature (°C)					Duration in hours to the nearest half hour of air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh . . .	21.2	12.0	16.6	14.7	18.4	24.0	24.0	24.0	23.0	14.3	4.0	1.1	0.1	0.0	0.0	0.0
Tahrir . . . . .	25.8	9.4	16.8	12.7	20.7	24.0	24.0	24.0	20.9	13.5	6.1	2.2	0.7	0.1	0.0	0.0
Bahtim . . . . .	24.8	8.5	16.4	12.3	20.4	24.0	24.0	24.0	20.4	12.9	5.9	2.1	0.6	0.0	0.0	0.0
Assuit . . . . .	27.8	9.8	18.4	14.1	22.5	24.0	24.0	24.0	21.2	15.0	8.8	4.1	1.4	0.2	0.0	0.0
Kharga . . . . .	30.8	14.0	22.6	19.0	26.1	24.0	24.0	24.0	23.4	20.4	14.9	5.0	3.8	3.8	0.1	0.0

**Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND,  
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5 cms ABOVE GROUND OVER  
DIFFERENT FIELDS  
MARCH — 1979**

STATION	Max. Temp. at 1½ metres				Min. Temp. at 1½ metres				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh . . .	32.9	21	15.8	5	17.0	22	7.6	1	4.5	1	—	—
Tahrir . . . . .	37.4	22	20.0	5	15.2	31	5.2	28	10.4	3	11.5	10
Bahtim . . . . .	36.5	22	18.4	8	13.3	31	4.8	14,15	0.6	10	-0.6	10
Assuit . . . . .	37.6	31	20.3	8	16.2	23,31	5.2	9	0.4	4,10	—	—
Kharga . . . . .	42.1	31	22.0	9	24.3	22	5.4	10	2.6	10	—	—

**Table C 3.—SOLAR + SKYL RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, AND VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND,  
EVAPORATION AND RAINFALL  
MARCH — 1979**

STATION	Solar + Skyl Radiation on g.u. cu/cm <sup>2</sup>	Duration of Bright Sunshine (hour.)			Relative Humidity				Vapour pressure (mmes)				Evaporation (mmes)		Rainfall (mmes)				
		Total Actua	Total Possible	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Pihe	pan class	Total Amounte	max fall in one day	Date
Mersa Matruh . . .	380.0	236.7	370.7	64	66	55	14	29	9.0	9.3	13.6	22	4.1	30	7.6	—	13.0	10.3	5
Tahrir . . .	—	252.2	371.1	68	64	40	10	30	8.7	8.3	13.1	21	4.0	30	5.3	6.06	2.9	2.8	1
Bahtim . . .	—	253.4	371.1	68	65	39	12	30	8.6	8.2	16.0	21	4.8	6,30	5.4	6.25	4.1	4.1	1
Assuit . . .	—	303.5	371.5	82	52	30	15	29	7.8	7.6	14.5	23	3.8	6	6.1	6.80	1.4	1.4	2
Kharga . . .	—	306.8	372.4	82	28	42	12	31	8.2	8.6	15.6	2	3.9	30	12.7	16.48	0.0	0.0	—

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cm)**  
**IN DIFFERENT FIELDS + (Gms)**

MARCH—1979

STATION	Highest (H) Lowest (L)	Dry Field								Grass							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	30
M. Matruh . . .	H L	— —	— 9.9	34.7 10.2	30.3 19.2	19.8 —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Tahrir . . . . .	H L	— —	— 10.2	34.0 10.4	37.6 20.0	21.0 21.1	21.2 —	— —	— —	29.7 11.9	27.8 11.2	25.0 12.1	23.3 14.2	21.6 16.6	20.2 17.0	19.8 18.4	— —
Bahtim . . . . .	H L	— —	— 11.4	48.3 11.4	32.7 22.2	22.4 22.9	23.4 —	— —	— —	30.2 10.8	26.4 11.6	24.0 13.0	21.3 14.7	19.2 16.3	18.8 17.4	16.3 19.2	— —
Assiut . . . . .	H L	— —	— 13.3	54.1 12.2	42.9 22.7	23.4 23.6	24.0 —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Kharga . . . . .	H L	— —	— 7.6	51.1 10.4	44.4 25.2	25.8 26.7	27.0 —	— —	— —	— —	— —	— —	— —	— —	— —	— —	

**Table C 5.—SURFACE WIND**

MARCH — 1979

STATION	Wind Speed m/sec (2 metres)			Days with surface wind speed at 10 metres								Max. Gust 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots	Value (knots)	Date	
M. Matruh . . . . .	4.3	3.4	5.1	31	29	17	2	3	2	0	36	7,8,30	
Tahrir . . . . .	2.0	1.3	2.8	28	20	2	2	0	0	0	43	6	
Bahtim. . . . .	2.1	1.4	2.8	28	14	6	1	0	0	0	35	6	
Assiut . . . . .	—	—	—	18	8	1	0	0	0	0	25	8,25	
Kharga . . . . .	2.2	1.7	3.4	30	26	12	3	0	0	0	33	24	

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THE ARAB REPUBLIC OF EGYPT

# MONTHLY WEATHER REPORT

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VOLUME 28

*22*

NUMBER 5

MAY 1979

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U.D. 551. 506. 1 (63)

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THE EGYPTIAN METEOROLOGICAL AUTHORITY

CAIRO

## **PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO**

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In fulfilment of its duties, the Egyptian Meteorological Authority issues several reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to:

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO.

### **THE MONTHLY WEATHER REPORT**

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

### **THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT**

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

### **THE ANNUAL REPORT**

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

### **CLIMATOLOGICAL NORMALS FOR EGYPT**

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

### **METEOROLOGICAL RESEARCH BULLETIN**

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

### **TECHNICAL NOTES**

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.



THE ARAB REPUBLIC OF EGYPT

# MONTHLY WEATHER REPORT

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VOLUME 28

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U.D. 551. 608. 1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY

CAIRO

# CONTENTS

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	PAGE
<b>General Summary of Weather Conditions . . . . .</b>	<b>1</b>
 <b>SURFACE DATA</b> 	
<b>Table A1.—Monthly values of the Atmospheric Pressure, Air Temperature, Relative Humidity, Bright Sunshine Duration and Picche Evaporation . . . . .</b>	<b>2</b>
“ <b>A2.—Maximum and Minimum Air Temperatures . . . . .</b>	<b>3</b>
“ <b>A3.—Sky Cover and Rainfall . . . . .</b>	<b>4</b>
“ <b>A4.—Number of Days of Occurrence of Miscellaneous Weather Phenomena . . . .</b>	<b>5</b>
“ <b>A5.—Number in Hours of Occurrences of Concurrent Surface Wind Speed and Direction Recorded Within Specified Ranges . . . . .</b>	<b>6-7</b>
 <b>UPPER AIR DATA</b> 	
<b>Table B1.—Monthly Means and Monthly Absolute Highest &amp; Lowest Values of Altitude, air Temperature &amp; Dew point at Standard and Selected Pressure Surfaces . . . . .</b>	<b>8,9</b>
“ <b>B2.—Mean and Extreme values of The Freezing Level and The Tropopause ; The Highest Wind Speed in The Upper Air . . . . .</b>	<b>10</b>
“ <b>B3.—Number of Occurrences of Wind Direction Within Specified Ranges and The Mean Scalar Wind Speed at the Standard and Selected Pressure Surfaces . . . .</b>	<b>11-13</b>
 <b>AGRO-METEOROLOGICAL DATA</b> 	
<b>Reviews of Agro-Meteorological Stations . . . . .</b>	<b>14,15</b>
<b>Table C1.—Air Temperature at 1½ metres Above Ground . . . . .</b>	<b>16</b>
“ <b>C2.—Extreme Values of Air Temperature at 1½ metres Above Ground, Absolute Minimum Air Temperature at 5 cms. above Ground Over Different Fields.</b>	<b>16</b>
“ <b>C3.—(Solar + Sky) Radiation, Duration of Bright Sunshine, Relative Humidity and Vapour Pressure at 1½ metres above Ground, Evaporation and Rainfall. . . . .</b>	<b>17</b>
“ <b>C4.—Extreme Soil Temperature at Different Depths in Different Fields . . . . .</b>	<b>17</b>
“ <b>C5.—Surface wind . . . . .</b>	<b>17</b>

*Note : For explanatory notes on tables please refer to Volume 21, Number 1 (January 1976).*

# GENERAL SUMMARY OF WEATHER CONDITIONS

MAY 1979

Generally mild weather changeable during the first half - severe on the 10th. - Scattered light rain over the northern parts on the 11th., 12th-heavy rain over the coastal east parts on the 3rd.,

## PRESSURE DISTRIBUTION :

The atmospheric pressure over Egypt was mainly influenced by :

- 1 — Weak high pressure over most of the mediterranean many days of the month.
- 2 — Secondary desert depressions passed through the Country mainly through middle & upper Egypt on the 1st, 2nd, 3rd, 8th, 9th, 27th, 28th & 29th.

The mean monthly atmospheric pressure was above normal.

## SURFACE WIND

Mostly light to moderate NE ly to NW ly winds became sometimes fresh SW ly, raising sand in scattered places by the break down of the heat waves.

## TEMPERATURE

Changeable temperatures prevailed during the first half of the month-generally mild weather during the second half of the month

where the temperatures were below normal except a short heat wave on the 25th, 26th over the northern parts.

The highest and lowest maximum temperatures were respectively 46.8°C at Kharga on the 2nd and 19.6°C at Mersa Matruh on the 1st.

The highest and lowest minimum temperatures were respectively 29.8°C at Kharga on the 3rd and 11.6°C, at Mersa Matruh on the 13th.

## PRECIPITATION

Light rain fell over the northern parts, became heavy over the eastern Coasts especially at Hurgda, El-Quseir on the 3rd. The maximum total amount and daily amount were 24.6 mms and 20.6 mms at Quseir on the 3rd.

## OTHER WEATHER PHENOMENA

Early morning mist developed over Scattered Places in lower Egypt & Cairo. Rising sand was reported in scattered places by the break down of heat waves.

*Cairo Jule 1981*

**Chairman (M. ALI BADRAN)**  
*Boadr of Cirecitors*

Table A 1.—MONTHLY VALUES OF ATMOSPHERIC PRESSURE, AIR TEMPERATURE,  
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION  
MAY 1979

Table A 2.—MAXIMUM &amp; MINIMUM AIR TEMPERATURE

MAY 1979

Station name	Maximum Temperature								Mean	Grass Min. Temp.	Minimum Temperature °C									
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.						Dev. from Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.				
					>25	>30	>35	>40	>45							<10	<5	<0	<-5	
El-Sallum . . . . .	31.3	25	20.8	2	15	02	00	00	00	14.9	20.8	27	13.6	4	00	00	00	00		
Mersa Matruh . . (A)	32.4	9	19.6	1	69	04	00	00	00	13.8	19.0	26	11.6	13	00	00	00	00		
Alexandria . . . (A)	36.0	01	22.6	1	20	05	01	00	00	14.5	21.1	30	12.2	8	00	00	00	00		
Port Said . . . (A)	31.0	2	22.0	4	11	01	00	00	00	19.5	22.0	31	17.7	5	00	00	00	00		
Arish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ghazia . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cairo . . . . . (A)	38.4	10	25.4	13	31	20	03	00	00	—	22.0	26	14.5	5	00	00	00	00	—	
Kayetm . . . . .	38.7	10	26.7	13	30	27	09	06	00	14.8	20.8	28	14.6	17	00	00	00	00	—	
Minya . . . . . (A)	41.2	10	29.6	13	31	29	14	04	00	14.6	21.0	2	13.8	6	00	00	00	00	—	
Assyout . . . . . (A)	43.4	28	29.4	19	31	27	15	04	00	17.3	24.2	2	14.5	7	00	00	00	00	—	
Luxor . . . . . (A)	46.0	28	33.4	20	31	31	27	14	01	14.4	27.0	3	15.8	22	00	00	00	00	—	
Aswan . . . . . (A)	45.3	29	34.4	21	31	31	29	17	01	—	29.3	3	18.3	7	00	00	00	00	—	
Siwa . . . . .	37.8	26	28.0	13	31	23	09	00	00	15.3	25.3	27	13.3	6	00	00	00	00	—	
Bahariya . . . . .	38.7	9	28.8	5	31	29	12	00	00	17.2	23.3	27	12.8	6	00	00	00	00	—	
Farafra . . . . .	39.9	1	28.9	19	31	30	18	00	00	16.9	23.2	27	14.8	6	00	00	00	00	—	
Dakhla . . . . .	44.9	12	31.2	6	31	31	20	09	00	18.8	26.0	3	12.1	7	00	00	00	00	—	
Kharga . . . . .	46.8	2	31.8	20	31	31	25	12	05	19.8	29.8	3	15.4	7	00	00	00	00	—	
Tor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Harghada . . . . .	35.0	12	27.9	20	31	19	02	00	00	—	24.8	3,30	19.3	9	00	00	00	00	—	
Quseir . . . . .	34.3	19	28.0	5	30	15	00	00	00	19.6	26.2	12	21.0	6	00	00	00	00	—	

Table A. 3—SKY COVER AND RAIN FALL

MAY — 1979

Station	Mean Sky Cover Oct.					Rain Fall mms										
	00 U.T.	60 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	Dev. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<.1	>=.1	>=1	>=5	>=10	>=25	>=50
El-sallum . . . . .	2.6	2.1	2.4	1.6	2.2	0.6	— 3.3	0.4	1	00	02	00	00	00	00	00
Mersa Matro . . . . . (A)	2.3	3.5	2.8	2.9	2.7	0.3	— 2.0	0.2	12	01	02	00	00	00	00	00
Alexandria . . . . . (A)	1.2	3.6	3.9	2.7	2.8	TR	—	TR	12	01	00	00	00	00	00	00
Port Said . . . . . (A)	2.7	2.6	2.2	2.3	2.4	TR	—	TR	18, 19	02	00	00	00	00	00	00
Cairo A.P. . . . .	0.6	2.0	2.5	1.8	1.7	0.0	— 0.7	--	—	00	00	00	00	00	00	00
El-Fayoum . . . . .	—	1.6	2.3	1.4	—	0.0	— 0.1	—	—	00	00	00	00	00	00	00
El Minia . . . . . (A)	0.5	1.8	2.1	1.6	1.5	0.0	— 0.1	—	—	00	00	00	00	00	00	00
Assuit . . . . . (A)	0.4	1.2	0.9	0.8	0.8	0.0	0.0	—	—	00	00	00	00	00	00	00
Luxor . . . . . (A)	0.7	1.3	1.6	1.2	1.1	1.2	1.1	1.2	3	00	01	01	00	00	00	00
Aswan . . . . . (A)	0.9	1.3	1.5	1.6	1.3	TR	—	TR	2	01	00	00	00	00	00	00
Sewa . . . . . (A)	1.5	2.0	1.7	2.2	1.8	0.0	— 2.0	—	—	00	00	00	00	00	00	00
El-Baharia . . . . .	0.6	1.5	2.2	1.5	1.4	0.0	— 0.1	—	—	00	00	00	00	00	00	00
El Farafra . . . . .	—	1.2	2.0	1.3	—	0.0	— 0.0	—	—	00	00	00	00	00	00	00
El Dakhla . . . . . (A)	0.0	0.7	0.9	0.7	0.5	0.0	— 0.1	—	—	00	00	00	00	00	00	00
El-Kharga . . . . . (A)	0.4	1.2	0.8	0.6	0.7	0.0	0.3	—	—	00	00	00	00	00	00	00
El Hurgada . . . . . (A)	1.7	1.8	2.5	1.8	2.0	6.0	5.6	6.0	3	00	01	01	00	00	00	00
El-Quseir . . . . .	0.7	1.5	1.8	1.3	1.3	24.6	24.5	20.6	3	00	02	02	01	01	00	00

Table A 4.—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

MAY — 1979

Station	Precipitation		Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandstorm Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow												
Alamein . . . . .	03	03	00	00	03	04	00	00	00	00	00	00	16	00
El Quseir Matruh (A)	02	00	00	00	00	20	02	01	07	00	00	00	13	02
Alexandria . . (A)	00	00	00	00	03	01	00	00	00	00	00	00	06	01
Port Said . . (A)	06	00	00	00	00	00	00	00	00	00	00	00	12	01
El Arish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazira . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo . . . . (A)	00	00	00	00	00	08	00	10	04	00	00	00	19	00
Fayoum . . . . .	00	00	00	00	00	00	00	01	01	00	00	00	20	03
Minya . . . . (A)	00	00	00	00	00	00	00	08	11	00	00	00	20	01
Assyout . . . . (A)	00	00	00	00	00	00	00	01	14	00	01	00	28	00
Luxor . . . . (A)	01	00	00	00	02	00	00	08	08	00	02	00	24	00
Aswan . . . . (A)	00	00	00	00	01	00	00	05	14	00	01	00	25	00
Siwa . . . . .	00	00	00	00	00	00	00	02	05	00	00	00	18	01
Bahariya . . . . .	00	00	00	00	00	00	00	00	04	00	00	00	22	01
Farafra . . . . .	00	00	00	00	00	00	00	01	05	00	02	00	20	01
Dakhla . . . . .	00	00	00	00	00	00	00	02	10	00	00	00	30	00
Kharga . . . . .	00	00	00	00	00	00	00	01	05	00	00	00	27	00
Tor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . . . .	01	00	00	00	03	00	00	00	02	00	00	00	17	03
Quseir . . . . .	02	00	00	00	03	00	00	00	00	00	00	00	21	00

**Ie A5—NUMBER IN HOURS OF OCCURRENCE OF CONCURRENT SURFACE WIND SPEED AND DIRECTIONS RECORDED WITHIN SPECIFIED RANGE**  
**MAY — 1979**

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	number in hours of occurrences of wind blowing from the ranges of directions indicated												All direction	
					345	015	045	075	105	135	165	195	225	255	285	315		
					014	044	074	104	134	164	194	224	254	284	314	344		
El-Sallum . . . . .	26	00	00	1—10	72	120	150	74	35	05	03	03	06	19	85	110	682	
				11—27	02	03	09	00	00	00	00	00	00	00	03	19	36	
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00	
				All speeds	74	123	159	74	35	05	03	03	06	19	88	129	718	
Mersa Matruh . . . . .	38	00	00	1—10	67	45	21	58	51	17	07	13	51	46	61	138	575	
				11—27	14	10	16	13	03	00	00	00	00	00	01	27	50	131
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00	
				All speeds	81	55	37	71	51	17	07	13	51	47	88	188	706	
Alexandria . . . . .	02	00	00	1—10	86	97	32	51	35	16	16	10	03	19	70	170	605	
				11—27	19	30	04	03	00	00	00	01	00	07	32	43	137	
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00	
				All speeds	105	127	35	52	35	16	16	11	03	26	102	213	742	
Cairo . . . . .	13	09	00	1—10	80	130	72	20	00	00	00	01	01	19	65	85	473	
				11—27	40	94	42	17	03	00	00	00	00	04	16	33	249	
				28—47	00	00	60	00	00	00	00	00	00	00	00	00	00	
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00	
				All speeds	120	224	114	37	03	00	00	01	01	23	81	118	722	
El-Fayoum . . . . .	07	05	00	1—10	192	332	129	02	00	00	02	05	03	02	13	25	705	
				11—27	00	20	07	00	00	00	00	03	00	00	00	00	00	
				28—47	00	00	00	00	03	00	00	00	00	00	00	00	00	
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00	
				All speeds	192	352	130	02	69	00	02	05	03	02	13	25	732	
El Minia . . . . .	02	01	00	1—10	256	66	09	03	01	13	02	02	06	03	17	89	467	
				11—27	233	30	02	00	00	00	00	00	00	00	00	09	274	
				28—47	00	60	00	00	00	00	00	00	00	00	00	00	00	
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00	
				All speeds	489	96	11	03	01	13	02	62	66	03	17	98	741	
Assuit . . . . .	10	00	00	1—10	122	33	18	18	08	04	08	05	0	13	26	90	354	
				11—27	136	13	01	00	06	02	05	05	01	00	17	189	375	
				28—47	01	00	00	00	00	00	00	00	00	00	01	03	05	
				≥ 48	00	00	60	00	00	00	00	00	00	00	00	00	00	
				All speeds	259	46	19	18	14	06	13	10	10	13	44	282	734	
Luxor . . . . .	01	00	00	1—10	89	92	45	35	12	18	43	50	27	44	69	159	683	
				11—27	16	07	04	05	00	06	07	04	00	00	01	09	59	
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00	
				All speeds	105	99	49	40	12	24	51	54	27	44	70	168	743	

— 7 —

**Table A6— (Contn) NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGE**  
**MAY — 1979**

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	number in hours of occurrences wind blowing from the ranges of directions indicated												
					345	015	045	075	105	135	165	195	225	255	285	315	All directions
					014	044	074	104	134	164	194	224	254	284	314	344	
Asswan . . . . .	01	05	00	1—10	124	38	19	13	13	35	21	13	13	25	36	114	464
				11—27	131	09	02	01	02	23	09	00	01	01	24	71	274
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	255	47	21	14	15	58	30	13	14	26	60	185	738
Sewa . . . . .	23	00	00	1—10	67	95	30	16	06	14	30	61	58	55	56	74	562
				11—27	15	25	13	02	01	00	01	24	26	12	14	26	159
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	82	120	43	18	07	14	31	85	84	67	70	100	721
El Dakhla . . . . .	09	07	00	1—10	51	26	42	57	36	34	29	38	31	35	66	172	617
				11—27	21	13	01	00	00	04	02	02	06	03	09	50	111
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	72	39	43	57	36	38	31	40	37	38	75	222	728
El Kharga . . . . .	02	09	00	1—10	259	81	23	06	03	10	17	12	12	11	27	85	545
				11—27	120	11	01	00	00	00	04	03	03	00	06	39	187
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	02	00	00	00	00	00	00	00	00	00	00	00
				All speed	379	92	24	06	03	10	21	15	15	11	33	124	733
El Hurgada . . . . .	00	00	00	1—10	30	38	14	15	08	29	05	01	03	43	102	30	318
				11—27	80	21	00	01	04	00	02	00	01	23	111	183	426
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	110	59	14	16	12	29	07	01	04	66	213	213	744
El Quseir . . . . .	02	00	00	1—10	150	53	16	07	13	08	20	12	09	26	125	139	578
				11—27	107	11	02	01	00	00	02	00	00	01	03	37	164
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	257	64	18	08	13	08	22	12	09	27	128	176	742

## UPPER AIR CLIMATOLOGICAL DATA

TABLE B 1—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER  
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT  
STANDARD AND SELECTED PRESSURE SURFACES

MAY — 1979

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
M. Metruh 0000 U.T.	Surface	31	1012 m.b.	1015 m.b.	1009 m.b.	31	18.4	21.0	16.0	31	14.3
	1000	31	126	154	105	31	18.1	21.8	13.2	31	13.6
	850	31	1511	1538	1477	31	14.0	20.0	6.8	31	-3.2
	700	31	3118	3175	3054	31	3.4	9.6	-1.9	31	-12.6
	600	31	4352	4435	4265	31	-5.2	6.1	-9.1	31	-20.0
	500	31	5726	5872	5652	31	-14.9	-10.7	-19.3	31	-30.1
	400	31	7405	7552	7281	31	-26.6	-23.7	-31.0	31	-41.5
	300	31	9421	9588	9299	31	-41.2	-36.1	-44.7	31	-55.2
	250	31	10640	10811	10515	31	-49.7	-45.9	-52.9	31	-62.5
	200	31	12077	12248	11957	31	-56.2	-59.1	-66.21	41	-68.1
	170	31	13895	14007	13765	31	-58.9	-54.2	-66.7	27	-71.5
	100	27	16426	16569	16273	27	-62.1	-58.1	-67.0	14	—
	70	20	18622	18785	18463	20	-61.6	-58.5	-65.0	—	—
	60	15	19599	19760	19450	15	-60.1	-57.2	-62.3	—	—
	50	15	20728	20877	20578	15	-58.0	-55.1	-61.7	—	—
	40	12	22212	22590	22050	12	-55.1	-52.9	-57.0	—	—
	30	9	23966	24187	23814	9	-51.8	-48.1	-54.9	—	—
	20	2	26774	26859	26688	2	-47.3	-47.0	-47.6	—	—
	10	—	—	—	—	—	—	—	—	—	—
Holwan 0000 U.T.	Surface	31	996 m.b.	1001 m.b.	991 m.b.	31	20.3	25.2	16.0	31	09.9
	1000	30	110	146	065	4	18.2	18.6	17.3	4	12.1
	850	30	1510	1536	1471	30	17.1	26.2	10.2	30	-00.1
	700	30	3138	3210	3097	30	07.1	14.6	1.6	29	-08.9
	600	30	4389	4484	4311	30	-01.2	03.2	-05.9	29	-16.4
	500	30	5816	5927	5730	30	-11.5	-07.7	-15.1	30	-26.0
	400	30	7491	7619	7395	30	-23.5	-19.3	-27.1	30	-35.2
	300	30	9535	9690	9414	30	-38.3	-33.3	-42.3	30	-49.3
	250	30	10767	10928	10633	30	-47.0	-43.3	-51.0	30	-57.0
	200	29	12214	12387	12103	29	-54.5	-49.4	-59.9	28	-63.5
	150	28	14037	14207	13914	28	-60.1	-54.1	-71.2	13	-66.6
	100	24	16551	16738	16396	24	-63.5	-54.1	-67.7	1	-69.2
	70	14	18691	18870	18518	14	-63.7	-58.9	-65.7	—	—
	60	10	19653	19830	19560	10	-63.2	-60.0	-66.0	—	—
	50	10	20761	20976	20640	10	-61.7	-59.7	-67.8	—	—
	40	5	22288	22440	22180	5	-58.0	-58.4	-58.9	—	—
	30	5	24032	24208	23932	5	-55.5	-57.0	-56.5	—	—
	20	1	26527	—	—	1	-54.0	-53.7	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aewan 0000 U.T.	Surface	29	988 m.b.	992 m.b.	982 m.b.	29	25.7	32.0	19.8	29	4.1
	1000	29	95	124	59	—	—	—	—	—	-3
	850	29	1518	1540	1479	29	20.7	28.0	15.0	29	-1.6
	700	29	3167	3207	3112	28	9.6	12.8	5.0	28	-9.4
	600	29	4425	4473	4364	29	-0.4	3.7	3.1	28	-16.5
	500	29	5860	5913	5793	29	-9.5	-2.9	-12.5	29	-25.2
	400	29	7549	7616	7460	28	-20.6	-18.0	-24.3	28	-35.1
	300	29	9617	9716	9508	28	-35.5	-31.7	-39.3	28	-48.7
	250	29	10861	10978	10746	29	-44.6	-37.5	-48.7	29	-55.2
	200	29	12322	12451	12217	28	-54.8	-46.5	-57.1	28	-64.2
	150	29	14117	14252	14007	29	-65.4	-62.3	-68.5	—	—
	100	27	16528	16672	16427	27	-75.4	-68.2	-80.5	—	—
	70	19	18604	18752	18058	19	-70.3	-63.0	-75.1	—	—
	60	12	19581	19700	19470	12	-65.7	-61.9	-69.1	—	—
	50	12	20670	20776	20545	12	-61.1	-52.4	-65.3	—	—
	40	5	22164	22260	22070	5	-55.6	-55.0	-56.0	—	—
	30	5	23930	24036	23818	5	-52.0	-50.1	-53.0	—	—
	20	2	26602	26674	26530	2	-49.7	-49.4	-50.1	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The Number of cases the element has been observed during the month,

\* The atmospheric pressure corrected to the elevation of the radiosonde station.

## UPPER AIR CLIMATOLOGICAL DATA

**Table B 1 (contd.) --MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHEST & LOWEST  
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT  
STANDARD AND SELECTED PRESSURE SURFACES**

MAY 1979

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)			Dew Point (°C)		
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	
Mersa Matruh 1200 U.T.	Surface	30	mb 1012	mb 1015	mb 1029	30	23.1	30.4	19.2	30	13.4
	1000	30	129	156	183	30	21.9	30.8	18.0	30	11.7
	850	30	1520	1550	1499	30	14.4	19.6	8.0	30	-4.4
	700	30	3131	3190	2627	30	3.9	8.8	2.0	30	-13.5
	600	30	4366	4443	4295	30	-4.3	-0.1	-7.9	30	-21.0
	500	30	5778	5874	5742	30	-13.8	-10.3	-16.5	30	-31.8
	400	30	7436	7555	7342	30	-25.7	-22.3	-28.9	30	-42.8
	300	30	9460	9595	9362	30	-40.4	-36.3	-44.5	30	-55.7
	250	30	10670	10817	10782	30	-49.0	-45.0	-51.3	30	-62.7
	200	29	12124	12247	11623	29	-55.7	-50.7	-60.7	27	-68.3
	150	29	13911	14041	13161	29	-58.2	-54.3	-63.0	13	-69.0
	100	27	16179	16613	16260	27	-61.4	-57.9	-64.1	1	-75.3
	70	22	17609	18833	18360	22	-61.1	-53.6	-66.1	—	—
	60	14	19672	19840	18520	14	-59.5	-56.0	-62.0	—	—
	50	13	20790	20937	20452	13	-56.3	-51.5	-58.9	—	—
	40	5	22344	22540	22179	5	-53.0	-50.9	-54.9	—	—
	30	3	23083	24228	23952	3	-48.9	-46.3	-50.9	—	—
	20	2	26780	26943	26397	2	-43.0	-40.7	-45.3	—	—
	10	—	—	—	—	—	—	—	—	—	
Helwan 1200 U.T.	Surface	31	993mb.	1 01mb.	991mb.	31	30.5	36.8	23.9	31	5.0
	1000	31	107	145	116	31	27.2	—	—	1	3.5
	850	31	1532	1589	1491	31	18.9	25.3	12.3	31	0.1
	700	31	3161	3211	3124	31	7.9	15.0	2.5	31	-12.0
	600	31	4414	4483	4330	31	-0.4	6.0	-3.5	31	-17.8
	500	30	5850	5937	5787	30	-10.1	-5.8	-13.1	30	-26.0
	400	29	7536	7657	7459	29	-21.6	-19.6	-24.5	29	-38.2
	300	29	9513	9777	9192	29	-36.1	-27.8	-39.5	29	-49.5
	250	27	10328	11061	10701	27	-44.6	-37.8	-49.8	27	-56.8
	200	27	12317	12846	11514	27	-51.8	-47.3	-55.1	27	-63.0
	150	27	14143	14433	13773	27	-54.9	-50.6	-60.0	26	-66.2
	100	25	16724	17012	16514	25	-57.9	-54.0	-62.7	11	-68.3
	70	19	18979	19273	18728	19	-57.1	-47.2	-64.1	—	—
	60	17	19951	20190	19830	17	-55.5	-51.4	-61.8	—	—
	50	17	21096	21242	20838	17	-52.7	-47.3	-59.9	—	—
	40	5	22640	22960	22350	5	-48.4	-40.9	-54.9	—	—
	30	5	24115	24829	24112	5	-42.5	-35.7	-51.2	—	—
	20	3	27255	27693	26793	3	-35.5	-28.1	-43.0	—	—
	10	—	—	—	—	—	—	—	—	—	
Aldwar 1200 U.T.	Surface	29	988mb.	992mb.	981mb.	29	38.1	43.8	33.0	29	5.6
	1000	29	86	120	18	—	—	—	—	—	
	850	29	1511	1551	1484	29	24.7	30.4	18.8	29	-4.0
	700	29	3203	3238	3161	29	11.8	14.0	9.3	29	-13.2
	600	29	4469	4506	4113	29	2.4	5.8	-0.9	29	-20.0
	500	29	5913	5961	5847	29	-7.6	-5.7	-11.4	28	-27.7
	400	28	7617	7661	7532	28	-19.1	-15.0	-23.4	28	-37.6
	300	28	9709	9767	9616	28	-33.8	-30.6	-38.0	28	-49.5
	250	28	10955	11027	10467	28	-44.3	-37.6	-45.4	28	-57.1
	200	28	12430	12882	12310	28	-52.9	-47.4	-57.2	28	-65.7
	150	28	14248	14329	14141	28	-62.3	-55.7	-66.4	7	-79.8
	100	26	16699	16791	16540	26	-70.8	-66.5	-73.8	—	—
	70	21	18309	18920	18640	24	-68.8	-59.0	-73.7	—	—
	60	14	19791	19980	19700	14	-63.9	-57.3	-72.9	—	—
	50	14	20869	20959	20703	14	-58.6	-55.1	-77.7	—	—
	40	6	22339	22410	22285	6	-52.9	-50.5	-66.4	—	—
	30	5	24271	24898	24078	5	-49.5	-47.8	-51.7	—	—
	20	4	26835	26908	26790	4	-44.9	-42.5	-49.6	—	—
	10	—	—	—	—	—	—	—	—	—	

N—The number of cases the element has been observed during the month.

\* The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B2— MEAN AND EXTREME VALUES AT THE FREEZING LEVEL AND THE TROPOPAUSE  
THE HIGHEST WIND SPEED IN THE UPPER AIR

MAY — 1979

STATION	Freezing Level									First Tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest							
	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (in.p.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)•	Speed in knots	
0000 U.T.	(N)	(N)	(N)							(N)	(N)	(N)											
	Mersa Matruh	3564 (31)	663 (31)	-14.7 (31)	4470	598	-23.5 (31)	2760	729	-11.7 (31)	12453 (27)	193 (27)	-58.7 (27)	17340	78	-69.0 (27)	10370	256	-50.0 (27)	5870	500	210	79
	Helwan . . .	4161 (30)	618 (30)	-13.9 (29)	4900	570	-23.4 (29)	3400	674	-16.8 (29)	13129 (22)	177 (22)	-59.1 (22)	16250	105	-57.7 (22)	10520	257	-49.7 (22)	13160	148	300	150
1200 U.T.	Aswan . . .	4419 (29)	602 (29)	-15.8 (29)	4910	565	-16.4 (29)	3960	635	-10.4 (29)	16137 (18)	108 (18)	-74.0 (18)	17980	79	-75.7 (18)	14800	134	-72.7 (18)	12150	207	260	115
	Mersa Matruh.	3722 (30)	651 (30)	-15.5 (30)	4430	601	-24.3 (30)	3120	689	-20.8 (30)	12495 (26)	103 (26)	-57.9 (26)	18260	76	-68.6 (26)	10420	258	-50.5 (26)	6685	442	230	8
	Helwan . . .	4299 (31)	609 (31)	-16.6 (30)	5300	541	-31.3 (30)	3570	667	-3.5 (30)	12690 (25)	192 (25)	-54.0 (25)	16180	115	-57.5 (25)	10600	259	-48.5 (25)	13680	162	315	150
	Aswan . . (A)	4811 (29)	577 (29)	-22.1 (29)	5380	539	-20.2 (29)	4460	599	-10.8 (29)	16406 (22)	108 (22)	-67.5 (22)	18480	75	-72.2 (22)	12980	185	-57.2 (22)	12700	188	260	125

N—The number of cases the element has been observed during the month.

**TABLE B 3, NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.**

MERSA MATRUH — MAY 1979

Time	Pressure Surface (Millibar)	Wind within specified ranges of direction (000—360)*													Number of Calm winds	Total Number of Observations (TN)	Mean scalar Wind speed												
		345		015		045		075		105		135		165		195		225		255		285							
		014	044	074	104	134	164	194	224	254	284	314	344	N	m	N	m	N	m	N	m	N	m						
0000 U.T.	Surface	2	8	1	5	1	6	2	7	5	5	1	6	0	—	1	1	2	4	3	6	3	—	6	8	4	31	4	
	1000	4	10	1	8	0	—	3	14	5	10	1	14	0	—	1	3	0	—	4	11	6	12	6	13	0	31	11	
	850	1	20	2	15	1	8	1	13	1	11	1	29	1	10	0	—	3	15	2	20	10	12	8	17	0	31	17	
	700	0	—	0	—	0	—	0	—	0	—	1	11	4	21	7	29	11	23	4	18	3	15	0	30	23	0	30	
	600	0	—	0	—	0	—	0	—	0	—	1	36	0	—	10	34	11	30	7	20	0	—	0	30	29	0	30	
	500	0	—	0	—	0	—	0	—	0	—	0	—	3	54	14	38	10	29	3	22	0	—	0	30	35	0	30	
	400	0	—	0	—	0	—	0	—	0	—	0	—	2	36	10	35	11	36	0	21	1	22	0	24	0	24	35	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	36	10	35	11	36	0	21	1	22	0	24	35	
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	3	46	4	40	2	—	0	—	0	10	37	
	200	—	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	46	1	27	0	—	0	—	3	
	150	—	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	61	
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1200 U.T.	Surface	7	11	2	12	3	12	1	15	0	—	0	—	0	—	0	—	0	—	0	—	5	15	12	13	0	30	13	
	1000	4	16	2	17	3	13	1	13	0	—	0	—	0	—	0	—	0	—	0	—	5	21	15	18	0	30	17	
	850	1	9	2	12	0	—	1	11	1	17	2	18	0	—	4	14	5	19	8	15	5	17	1	15	0	30	19	
	700	1	6	0	—	0	—	0	—	0	—	0	—	2	10	3	35	8	29	7	24	5	17	4	14	0	30	22	
	600	0	—	0	—	0	—	0	—	0	—	0	—	2	23	2	30	9	38	12	24	1	27	4	14	0	30	27	
	500	1	9	0	—	0	—	0	—	0	—	0	—	0	—	2	48	14	35	9	33	1	7	3	12	0	30	32	
	400	0	—	0	—	0	—	0	—	0	—	0	—	4	30	8	45	7	32	2	16	1	24	0	22	35			
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	51	3	57	4	49	0	—	0	—	0	10	14	
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	40	0	—	0	—	0	4	40	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	33	0	—	0	—	0	0	2	38
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

**Table B 3.--NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**  
**HELWAN MAY 1979**

Pressure Surface (Millibar)	Wind within ranges of direction (000 - 360) <sup>*</sup>													Number of Calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)											
	315		015		045		075		105		135		165		195		225		255		285						
	014	044	074	104	134	164	194	224	254	284	314	344	N	m	N	m	N	m	N	m	N	m	N	m			
Surface 1000	4	06	8	08	14	11	2	15	0	—	0	—	0	—	0	—	0	—	0	—	2	08	1	31	9		
	1	03	1	07	2	07	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	6		
	6	19	6	11	5	14	0	—	1	07	1	20	0	—	0	—	0	—	0	—	11	15	0	30	15		
	4	14	1	24	0	—	0	—	0	—	0	—	1	09	0	—	5	23	13	12	0	30	21	0			
	2	28	0	—	0	—	0	—	0	—	0	—	0	—	3	25	5	36	10	35	10	24	0	30	33		
	1	36	0	—	0	—	0	—	0	—	0	—	0	—	1	18	8	40	13	43	7	21	0	30	38		
	1	44	0	—	0	—	0	—	0	—	0	—	0	—	1	23	6	45	14	55	7	31	0	29	48		
	2	48	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	58	14	64	4	64	0	26	60		
	1	97	0	—	0	—	0	—	0	—	0	—	0	—	1	37	6	77	4	84	7	61	0	20	73		
	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	87	7	74	2	88	0	16	86		
	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	77	1	61	0	—	0	5	76		
	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	—	—	—	—	—	0	3	72		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
U.T1200	7	09	10	10	2	06	0	—	0	—	0	—	0	—	1	03	0	—	1	05	4	09	6	11	0	31	9
	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	0	1	14		
	6	15	9	14	2	08	3	08	1	08	9	—	1	15	1	11	1	19	0	—	4	11	3	09	0	31	12
	3	16	1	10	0	—	0	—	0	—	0	—	0	—	0	—	8	25	8	18	11	17	0	31	19		
	2	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	19	32	11	28	8	21	0	31	27		
	2	19	0	—	0	—	1	12	0	—	0	—	0	—	1	31	7	27	9	46	10	30	0	29	34		
	0	—	0	—	0	—	1	12	0	—	0	—	0	—	0	—	6	38	14	49	6	37	0	27	42		
	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	41	13	66	6	51	0	24	57		
	1	58	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	57	12	58	4	66	0	20	59		
	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	50	7	64	6	78	0	18	72		
	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	33	1	30	0	—	3	90	0	10	72		
	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	33	1	30	0	—	0	—	0	2	32		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N= The number of cases the wind has been observed within the range of direction during the month.

TN= The total number of cases the wind has been observed for all directions during the month.

**Table B 3. (contd) — NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**  
**ASWAN MAY 1979**

Time	Pressure Surface (Millibar)	Wind within specified ranges of direction (000—360) <sup>°</sup>														Number of calm winds	Total Number of Observations (TN)	Mean scalarwind Speed (knots)										
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314						
		N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m					
0030 U.T.	Surface of station	13	11	1	8	1	4	1	7	3	7	0	—	1	11	0	—	0	—	1	8	2	7	6	10	0	29	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	850	4	18	10	18	1	12	0	—	0	—	1	13	1	23	3	5	1	11	2	11	2	8	4	15	0	29	15
	700	4	21	0	—	0	—	0	—	0	—	1	13	0	—	4	14	2	17	7	21	7	14	4	16	0	29	17
	600	1	32	1	14	0	—	0	—	1	9	0	—	0	—	5	21	7	19	6	29	5	21	3	19	0	29	22
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	26	10	29	10	30	6	22	0	—	0	29	27
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	35	5	43	19	37	3	39	0	—	0	29	38
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	68	12	48	12	54	1	39	0	—	0	29	53
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	15	67	12	66	1	44	0	—	0	29	66
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	102	8	80	17	75	1	54	0	—	0	29	79
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10	77	17	72	0	—	0	—	0	27	74
	100	0	—	0	—	0	—	3	16	0	—	0	—	0	—	1	29	8	41	7	49	1	20	0	—	0	17	42
	70	1	28	0	—	1	23	3	16	2	14	0	—	0	—	0	—	1	16	1	18	0	—	0	—	0	9	18
	60	0	—	0	—	2	21	2	18	0	—	1	15	0	—	0	—	0	—	1	16	0	—	0	—	0	7	18
	50	1	16	0	—	1	23	3	29	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	17
	40	0	—	0	—	2	25	2	51	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	27
	30	0	—	0	—	2	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	39
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1200 U.T.	Surface of station	7	13	3	14	1	10	0	—	1	9	1	13	2	16	0	—	0	—	3	5	2	9	9	12	0	29	12
	1000	—	—	—	—	—	—	—	—	1	9	1	13	2	16	0	—	—	—	—	—	—	—	—	—	—		
	850	6	16	1	14	3	9	1	6	0	—	0	—	0	—	2	19	1	18	3	8	6	16	6	12	0	29	13
	700	4	19	0	—	1	14	0	—	0	—	2	6	0	—	5	19	7	15	2	18	3	27	5	18	0	29	17
	600	0	—	1	11	1	10	0	—	0	—	1	9	1	12	4	19	10	23	5	24	2	23	4	27	0	29	21
	500	1	9	1	10	0	—	0	—	1	6	0	—	0	—	6	25	8	24	8	30	3	37	1	22	0	29	25
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	37	12	34	9	42	3	27	0	—	0	29	39
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	92	12	57	14	55	1	42	0	—	0	28	58
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	98	10	69	14	64	2	75	0	—	0	28	69
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	113	11	82	15	70	1	58	0	—	0	28	79
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	64	11	68	14	69	2	24	0	—	0	26	68
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	27	13	34	6	27	0	—	0	—	0	22	31
	70	0	—	0	—	0	—	2	12	1	22	2	21	2	12	2	12	2	16	0	—	0	—	0	—	0	11	15
	60	0	—	0	—	2	23	5	19	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	8	20
	50	0	—	0	—	1	20	2	26	2	19	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	6	22
	40	0	—	0	—	0	—	2	15	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	14
	30	0	—	0	—	0	—	3	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	16
	20	0	—	0	—	0	—	2	28	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	28
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

### **GENERAL SUMMARY OF WEATHER CONDITIONS**

#### **MERSA MATRUH — MAY 1979**

The mean daily air temperatures was almost equal to normal. The mean daily relative humidity was remarkably above normal. The total rainfall was 0.1 mm. while the normal is 3.0 mm.

The maximum and minimum temperatures were remarkably below normal most of the month, except for two slight heat waves in the periods (8th, 9th) and (24th-26th). The maximum temperatures ranged between 19.6°C on the 1st and 32.4°C on the 9th. The minimum temperatures ranged between 11.6°C on the 13th and 17.6°C on the 11th.

The mean actual daily sunshine duration and wind speed at 1.5 met. height were below average respectively by 1.5 hours and 0.2 met./sec.

The highest maximum soil temperatures were at all depths above those of May 1978 with departures between 0.6°C at 5cm. and 50 m. depth and 3.0°C at 2cm. depth. The lowest minimum soil temperatures were above those of May 1978 with departures between 1.3°C at 200 cm. depth and 3.3°C at 50 cm. depth.

#### **TAHRIR — MAY 1979**

The mean daily air temperature was nearly equal to normal. The mean daily relative humidity was equal to normal. The month was rainless while the normal total monthly rainfall is 4.9 mms.

The month was distinguished by two heat waves on the 2nd and in the period (7th - 11th) and the weather was mild or fair otherwise. The maximum temperatures ranged between 28.5°C on the 3rd and 38.8°C on the 10th. The minimum temperatures ranged between 11.2°C on the 17th and 17.6°C on the 13th.

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaporation were less than normal by 0.8 hour, 0.4 met./sec. and 1.89 mms. respectively.

The highest maximum soil temperatures were around normal with departures between - 0.7°C at 2 cms. depth and +0.8°C at 10 cms. depth. The lowest minimum soil temperatures were around normal with departures between -0.6°C at 600 cms. depth and +2.5°C at 20 cms. depth.

#### **BAHTIM — MAY 1979**

The mean daily air temperature was below normal by 1.1°C. The mean daily relative humidity was below normal by 2%. The month was rainless while the normal total monthly rainfall is 6.5 mms.

The month was distinguished by two heat waves in the periods (1st - 2nd), (8th - 11th). Apart from these, the maximum temperatures were below normal. The maximum temperatures ranged between 26.3°C on the 13th and 37.7°C on the 10th. The minimum temperatures ranged between 10.1°C on the 17th and 17.7°C on the 29th.

The mean daily actual sunshine duration, wind speed at 1.5 met. height were below normal by 0.3 hour, 0.2 met/sec. and pan evaporation was above normal by 0.56 mms.

The highest maximum soil temperatures were above normal with departures between 00.0°C at 300 cms depth and 2.7°C at 2°Cms depth. The lowest minimum soil temperatures were above normal with departures between 0.2°C at 300 cms depth and 2.4°C at both 2cms, 10 cms depth.

#### ASYOUT — MAY 1979

The mean daily air temperature was slightly below that of last May. The mean daily relative humidity was equal to that of last May. The month was rainless as well as last May.

Temperature was changeable all over the month. The maximum temperatures ranged between 30.6°C on the 5th and 34.4°C on the 28th. The minimum temperatures ranged between 13.4°C on the 7th and 22.4°C on the 3rd.

The mean actual sunshine duration and panevaporation were less than those of last May by 1.1 hours and 0.61 mm. respectively.

The highest maximum soil temperatures were around those of last May with departures between -3.5°C at 2 cms. depth and + 1.3 °C at 200 cms. depth. The lowest minimum soil temperatures were around those of last May with departures between -0.2°C at 2 cms. depth and + 1.6°C at 50 cms, depth.

#### EL- KHARGA — MAY 1979

The mean daily air temperature, relative humidity were above normal by 2.1°C, 4% respectively. The month was rainless while the normal total monthly rainfall is 0.2 mm.

The month was generally hot. It was intervened by three severe heat waves and a short moderate one. The maximum temperatures ranged between 31.8°C on the 20th and 46.6°C on the 2nd. The minimum temperatures ranged between 15.4°C on the 7th and 29.8°C on the 3rd.

The mean daily actual sunshine duration, windspeed and pan evaporation were below average by 0.3 hours, 0.6 met./sec and 1.32 mm. respectively.

The highest maximum soil temperatures were above normal with departures between 0.0°C at 50 cms depth and 4.3°C at 10 cms depth. The lowest minimum soil temperatures were around normal with departures between — 0.6°C at 10 cms depth and + 1.6°C at 50 cms depth.

**Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND  
MAY — 1979**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values.											
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	
M. Matruh .....	24.3	15.2	19.9	17.4	20.7	24.0	24.0	24.0	24.0	22.1	10.1	2.7	0.4	0.0	0.0	0.0	
Tahrir .....	31.6	14.6	22.5	18.2	24.2	24.0	24.0	23.0	24.0	21.9	14.3	8.6	2.7	0.2	0.0	0.0	
Bahtim .....	31.0	14.1	22.8	18.4	24.5	24.0	24.0	23.0	24.0	21.5	15.2	17.8	2.7	0.2	0.0	0.0	
Assiut .....	36.3	17.5	26.6	22.1	28.3	24.0	24.0	24.0	24.0	13.9	19.5	13.3	7.7	2.7	0.4	0.0	
Kharga .....	38.8	22.6	31.2	27.8	32.4	24.0	24.0	24.0	24.0	23.4	19.9	13.2	6.4	2.1	0.4		

**Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND  
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5 cms ABOVE GROUND OVER  
DIFFERENT FIELDS.  
MAY — 1979**

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh.....	32.4	9	19.6	1	19.0	26	11.6	13	9.0	13	—	—
Tahrir .....	38.1	10	28.6	19	18.0	29	11.6	8	9.9	8	9.0	8
Bahtim .....	37.7	10	26.3	13	17.7	24	10.9	17	8.2	6	6.4	5
Assiut .....	43.4	23	30.6	5.20	22.4	3	13.4	7	9.4	—	—	—
Kharga .....	46.6	2	31.8	20	29.8	3	13.4	7	11.2	7	—	—

**Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL.  
MAY — 1979**

STATION	(Solar+Sky) Radiation gm. cal/cm <sup>2</sup>	Duration of Bright Sunshine (hours)			Relative Humidity.%			Vapour pressure (mmes)					Evaporation (mmes)	Rainfall (mmes)					
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Picks	Pan class (A)	Total Amount Monthly	Max. Fall in one day	Date
M. Matruh	536.5	331.4	426.0	78	78	63	25	8	13.5	13.4	17.1	30	8.5	8	5.3	—	0.1	0.1	4
Tahrir....	—	322.6	424.5	76	59	32	17	10	11.2	10.1	16.0	12	7.0	9	7.4	9.04	0.0	0.0	—
Bahtim...	—	318.8	422.9	75	55	30	12	9	10.5	9.3	16.0	12	4.9	9	9.0	11.19	0.0	0.0	—
Assiut....	—	340.2	403.1	86	34	19	10	8	8.5	7.7	13.4	3	3.9	8	10.8	11.68	0.0	0.0	—
Kharga...	—	345.0	414.4	83	25	17	06	1	8.0	8.4	16.8	12	1.7	5	20.2	18.71	0.0	0.0	—

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS  
IN DIFFERENT FIELDS. (cms)**

**MAY — 1979**

STATION	Highest (H) Lowest (L)	Dry Field								Grass							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
M. Matruh . . .	H	41.2	39.8	32.4	28.4	25.6	23.5	22.0	—	—	—	—	—	—	—	—	—
	L	18.2	18.3	18.7	20.4	21.0	12.0	20.6	—	—	—	—	—	—	—	—	—
Tahrir . . . .	H	50.9	44.9	39.4	33.6	29.6	27.0	24.9	24.1	37.5	34.9	31.9	28.8	27.1	23.1	23.5	—
	L	20.8	20.4	21.9	25.4	26.2	24.4	22.9	22.8	20.0	20.0	19.7	21.0	24.0	25.3	21.6	—
Bahtim . . . .	H	24.6	44.6	37.4	23.7	28.7	26.6	24.2	23.2	36.0	32.4	30.0	26.8	24.6	22.9	21.2	—
	L	24.5	23.4	24.4	26.5	26.1	24.1	23.1	23.9	19.8	20.0	20.7	22.3	22.3	20.8	20.3	—
Assiut . . . .	H	62.3	50.7	42.2	35.0	30.5	28.4	25.8	24.4	—	—	—	—	—	—	—	—
	L	28.1	24.4	25.8	28.6	27.9	25.8	24.3	23.9	—	—	—	—	—	—	—	—
Kharga . . . .	H	58.8	52.8	46.4	39.2	32.6	30.4	28.4	27.7	—	—	—	—	—	—	—	—
	L	17.2	20.3	24.3	29.0	30.1	28.3	26.8	27.1	—	—	—	—	—	—	—	—

**Table C 5.—SURFACE WIND**

**MAY — 1979**

STATION	Wind Speed m/sec (2 metres)			Days with surface wind speed at (10 metres)								Na .. Gust 10 metres	
	Mean of the day	Night time mean	Day time mean	≥10 (knts)	≥15 (knts)	≥20 (knts)	≥25 (knts)	≥30 (knts)	≥35 (knts)	≥40 (knts)	Value (knts)		Date
M. Matruh. .	3.3	1.4	4.4	31	25	8	3	0	0	0	30	1	
Tahrir . . .	2.0	1.4	2.7	31	14	3	0	0	0	0	37	15	
Bahtim . . .	2.4	1.7	3.1	31	22	4	1	0	0	0	34	1	
Assiut . . .	—	—	—	27	10	0	0	0	0	0	29	16	
Kharga . . .	3.4	2.5	4.3	31	27	11	5	2	1	0	36	3	

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*The Chairman*  
Accountant / **Saleh Zakaria**

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THE ARAB REPUBLIC OF EGYPT

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# MONTHLY WEATHER REPORT

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VOLUME 23

NUMBER 5

MAY 1980

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U.D.C. 551. 505. 1 (65)

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THE EGYPTIAN METEOROLOGICAL AUTHORITY

CAIRO

## **PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO**

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In fulfilment of its duties, the Egyptian Meteorological Authority issues several reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO.

### **THE MONTHLY WEATHER REPORT**

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

### **THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT**

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

### **THE ANNUAL REPORT**

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

### **CLIMATOLOGICAL NORMALS FOR EGYPT**

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

### **METEOROLOGICAL RESEARCH BULLETIN**

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

### **TECHNICAL NOTES**

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.



THE ARAB REPUBLIC OF EGYPT

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# MONTHLY WEATHER REPORT

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---

U.D.C. 551. 905. 1 (65)

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THE EGYPTIAN METEOROLOGICAL AUTHORITY

CAIRO

## CONTENTS

	Page
General Summary of Weather Conditions . . . . .	1

### SURFACE DATA

<b>Table A1.—Monthly values of the Atmospheric Pressure, Air Temperature, Relative Humidity, Bright Sunshine Duration, and Piche Evaporation . . . . .</b>	<b>3</b>
„ <b>A2.—Maximum and Minimum Air Temperatures . . . . .</b>	<b>3</b>
„ <b>A3.—Sky Cover and Rainfall . . . . .</b>	<b>4</b>
„ <b>A4.—Number of Days of Occurrence of Miscellaneous Weather Phenomena . . . . .</b>	<b>5</b>
„ <b>A5.—Number in Hours of Occurrences of Concurrent Surface Wind Speed and Direction Recorded Within Specified Ranges . . . . .</b>	<b>6,7</b>

### UPPER AIR DATA

<b>Table B1.—Monthly Means and Monthly Absolute Highest &amp; Lowest Values of Altitude, Air Temperature &amp; Dew point at Standard and Selected Pressure Surfaces . . . . .</b>	<b>8,9</b>
„ <b>B2.—Mean and Extreme values of The Freezing Level and The Tropopause. The Highest Wind Speed in The Upper Air . . . . .</b>	<b>10</b>
„ <b>B3.—Number of Occurrences of Wind Direction within Specified Ranges and The Mean Scalar Wind Speed at the Standard and Selected Pressure Surfaces . . . . .</b>	<b>11—13</b>

### AGRO-METEOROLOGICAL DATA

<b>Reviews of Agro-meteorological Stations . . . . .</b>	<b>14,15</b>
<b>Table C1.—Air Temperature at 1½ metres above Ground . . . . .</b>	<b>16</b>
„ <b>C2.—Extreme Values of Air Temperature at 1½ metres above Ground, Absolute Minimum Air Temperature at 5 Cms Above Ground over Different Fields . . . . .</b>	<b>16</b>
„ <b>C3.—(Solar + Sky) Radiation, Duration of Bright Sunshine, Relative Humidity and Vapour Pressure at 1½ Metres Above Gorund, Evaporation and Rainfall . . . . .</b>	<b>16</b>
„ <b>C4.—Extreme Soil Temperature at Different Depths in Different Fields . . . . .</b>	<b>17</b>
„ <b>C5.—Surface wind. . . . .</b>	<b>17</b>

Note : For explanatory notes on the tables please refer to Volume 21 number 1 (January 1975).

# GENERAL SUMMARY OF WEATHER CONDITIONS

MAY 1980

**Changeable Weather Very Hot Weather on the Soth. Scattered Light Rain  
on the northern Ccdst on the 18 th and 24th.**

## PRESSURE DISTRIBUTION

The country fell under troughs and centres of low pressure in the periods (1st,2nd), (6th), (11th-21st), (24th,25th) and (30th,31st), and under ridges in the periods (3rd-5th), (7th-10th), (22nd,23rd) and (26th-29th).

The lowest minimum air temperature was 11.7°C in both MERSA MATRUH and ALEXANDRIA on 15th.

Light rain fell, on few days, over scattered places of the morthern coast. The highest daily amount of rainfall was 0.8mm in ELSALLUM on 18th.

## SURFACE WIND

Most surface winds were NE ly to NW ly light to moderate, turned to moderate, turned to fresh to strong SW ly, on some days with the fall of the hot waves, causing rising sand in scattered places.

The highest total monthly rainfall was 1.1mm in ELSALLUM.

## TEMPERATURE

The month was intervened by several successive hot waves, of which the most severe was on the 20th.

Morning mist was observed in scattered places of lower Egypt and Cairo. Rising sand was observed, on few days in acattaed areas, withr the fall of the hot waves.

The highest maximum air temperure was 47.6 in Both LUXOR and EL-KHARGA on 21st and 20th respectevl.

Chairman ( M. ALI BADRAN)

(Board of Directors.)

Cairo MAY 1980

**Table A 1. -- MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,  
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION**  
**MAY 1980**

STATION NAME	Atmospheric Pressure (mbs) M.S.L		Air Temperature								Repative Humieity %	Bright Sunshine Duration (Hours)			piche Evap- orated				
	Mean	D.F.N Normal or Average	Maximum		Minimum		A+B 2	Dry Bulb		Wet Bulb		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actua	Total possible	%	
			(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average								
El-Sallum . . .	1012.5	-1.0	26.8	0.7	17.0	0.4	21.9	21.4	0.5	16.1	-0.2	59	51	—	—	—	—	6.1	
Mersa Matruh . . .	1013.1	-0.5	15.1	-0.3	15.4	0.6	20.2	20.0	-0.1	17.2	0.8	79	71	311.1	426.4	73	—	6.6	
Alexandria . . .	1013.0	-0.5	27.2	0.5	15.8	-0.7	21.5	20.7	-0.6	16.8	-0.7	68	60	286.1	426.2	67	4.3	—	
Port Said . . .	1012.8	-0.0	25.2	-0.4	18.4	-1.0	21.8	21.1	-0.8	17.7	-1.2	71	63	283.4	426.3	66	5.5	—	
El-Arish . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ghagza . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cairo A.P. . .	1011.8	0.1	33.0	0.8	17.3	-0.1	25.1	24.8	0.2	16.2	-0.8	42	34	—	—	—	—	15.6	
Fayoum . . .	—	—	35.4	2.1	16.3	-0.7	25.8	25.6	0.7	16.9	0.5	41	33	—	—	—	—	9.1	
Minia . . .	1010.5	-0.8	36.4	1.6	16.6	0.2	26.5	26.7	0.9	16.0	-0.6	32	24	331.2	420.0	79	—	15.8	
Assiut . . .	1010.5	-0.1	36.7	0.7	18.7	-0.4	27.7	28.1	0.3	15.0	-0.9	20	12	—	—	—	—	20.6	
Luxor . . .	1008.3	-0.6	40.6	1.5	20.1	-0.1	30.3	30.3	0.2	17.6	0.2	24	16	—	—	—	—	11.9	
Aswan . . .	1007.4	-1.0	40.4	0.7	23.3	0.7	31.8	32.2	1.0	16.7	1.2	14	6	358.3	412.5	87	—	24.8	
Sewa . . .	1011.7	-1.2	34.6	0.5	18.7	1.8	26.6	26.7	1.1	16.5	1.0	33	25	321.0	422.2	76	—	13.8	
Baharia . . .	1010.5	-1.6	35.9	1.5	18.7	1.3	27.3	27.6	1.6	15.9	0.1	27	19	—	—	—	—	12.8	
Farafra . . .	1011.4	-1.4	36.7	1.8	18.6	1.5	27.6	27.7	1.8	15.2	0.4	22	14	—	—	—	—	18.4	
Dakhla . . .	1010.6	-0.4	38.2	1.6	18.5	-0.7	28.3	28.8	0.8	15.7	0.1	21	13	—	—	—	—	17.8	
harga . . .	1009.7	-0.8	39.8	2.3	21.3	0.5	30.5	30.9	1.9	17.3	1.8	26	18	334.6	415.2	81	—	20.0	
Tor . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ghurdaga . . .	1009.4	0.1	30.1	0.1	21.1	0.7	25.6	25.9	0.3	17.5	-0.6	39	31	346.3	418.5	83	—	16.0	
Quseir . . .	1008.4	-0.9	30.1	0.1	22.9	0.1	26.5	26.6	0.0	19.2	0.4	47	39	—	—	—	—	8.4	

D.F.N Difference From Normal

TABLE A2— MAXIMUM AND MINIMUM AIR TEMPERATURE

MAY — 1980

Station Name	Maximum Temperature°C										Grass Min. Temp.		Minimum Temperature Deg. C									
	Highest Value	Date (S)	Lowest Value	Date (S)	No. of days. with Max. Temp.					Mean	Dif. From Normal D.F.N	Highest Value	Date (S)	Lowest Value	Date (S)	Number of Days with MIN - TEMP.						
					>25	>30	>35	>40	>45							<10	<05	<00	<-5			
El-sallum . . .	42.2	30	21.0	4	13	08	04	01	00	15.5	—	24.6	30	14.4	3,4,15	00	00	00	00			
Mersa Matroh . .	37.4	30	20.0	4	14	04	02	00	00	13.9	—	19.0	30	11.7	15	00	00	00	00			
Alexandria . . .	39.6	20	21.4	14	18	10	03	00	00	13.4	—	19.3	30	11.7	15	00	00	00	00			
Port Said . . .	36.6	20	21.0	14	12	03	02	00	00	17.7	—	23.4	31	15.9	4	00	00	00	00			
Cairo A.P . . .	44.2	20	26.0	3,4	31	21	12	03	00	—	—	24.1	31	13.7	15	00	00	00	00			
El-Fayoum . . .	45.3	31	27.5	3	31	26	16	04	01	13.8	—	23.0	31	12.4	14	00	00	00	00			
El-Minia . . .	45.6	20	28.5	4	31	27	19	08	02	14.2	—	21.2	21	12.8	1	00	00	00	00			
Assuit . . .	45.3	20	27.6	14	31	27	20	08	01	17.3	—	24.7	21	13.6	15	00	00	00	00			
Luxor . . .	47.8	21	32.4	13	31	31	27	19	03	14.6	—	26.8	22	14.6	6	00	00	00	00			
Aswan . . .	47.0	21	32.6	4	31	31	28	19	01	—	—	29.1	22	17.2	5	00	00	00	00			
Sewa . . .	42.0	28,31	26.0	3	31	23	13	07	00	16.0	—	24.0	31	12.9	4	00	00	00	00			
El-Baharia . . .	45.3	31	27.5	14	31	27	18	08	02	17.8	—	26.1	20	12.7	15	00	00	00	00			
El-Farafra . . .	45.5	20	27.7	13	31	27	18	11	01	17.5	—	24.1	21	12.6	5	00	00	00	00			
El-Dakhla . . .	47.6	20	29.0	13	31	28	23	12	02	18.6	—	26.2	21	10.8	5	00	00	00	00			
El-Kharga . . .	47.8	20	30.5	13	31	31	25	14	04	18.9	—	30.0	27	13.0	16	00	00	00	00			
El-Ghurdaga . . .	35.6	31	26.2	4	31	18	01	00	00	—	—	25.7	27	15.8	6	00	00	00	00			
El-Quseir . . .	34.2	9	26.5	5	31	15	00	00	00	19.9	—	26.6	27	19.4	5	00	00	00	00			



Table A 4.—DAYES OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

MAY — 1980

Station	Precipitation		Trost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis <1000 Metres	Haze Vis 1000 Metres	Thick Haze Vis <1000 Metres	Dust or Sandrising Vis ≥1000 Metres	Dust or Sandstorm Vis <1000 Metres	Gale	Clear Sky	Cloudy Sky	
	Rain	Snow												
Sallum . . . . .	02	00	00	00	02	00	03	04	00	00	00	13	—	02
Marsa Matruh (A) . . . . .	00	00	00	00	11	00	02	12	00	00	00	10	02	—
Alexandria (A) . . . . .	00	09	00	00	00	01	00	02	00	01	01	11	01	04
Port Said (A) . . . . .	03	00	00	00	11	00	00	06	00	01	01	11	04	—
El Arish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo . . . . (A)	00	00	00	00	05	00	06	07	00	01	00	18	01	—
Fayoum . . . . .	00	00	00	00	00	00	01	03	00	00	00	18	04	—
Minya . . . . (A)	00	00	00	00	00	00	07	14	00	00	00	22	01	—
Assyout . . . . (A)	00	00	00	00	00	00	01	14	01	03	02	24	00	—
Luxor . . . . (A)	00	00	00	00	00	00	14	07	00	02	00	26	00	—
Aswan . . . . (A)	00	00	00	00	00	00	05	10	00	02	00	29	00	—
Siwa . . . . .	00	00	00	00	00	00	00	08	00	01	00	23	01	—
Bahariya . . . . .	00	00	00	00	00	00	00	04	00	00	00	22	01	—
Farafra . . . . .	00	00	00	00	00	00	01	06	00	02	00	22	03	—
Dakhla . . . . .	00	00	00	00	00	00	00	12	00	00	00	30	00	—
Kharga . . . . .	00	00	00	00	00	00	00	08	01	00	00	22	00	—
Tor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . . . .	00	00	00	00	00	00	00	06	00	01	00	21	02	—
Quseir . . . . .	00	00	00	00	00	00	00	01	00	00	00	26	00	—

**Table A5—NUMBER IN HOURS OF OCCURRENCE OF CONCURRENT SURFACE WIND SPEED  
AND DIRECTION RECORDED WITHIN SPECIFIED RANGE**  
**MAY — 1980**

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	number in hours of occurrences of wind blowing from the ranges of directions indicated												
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All direction
El-Sallum . . . . .	12	02	00	1—10	54	86	128	90	40	21	06	07	18	14	92	40	596
				11—27	13	06	05	03	01	04	04	10	06	08	61	16	133
				23—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				> 48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	67	92	133	90	41	25	10	17	24	22	153	56	730
Mersa Matroh . . . .	08	00	00	1—10	51	29	20	76	85	12	03	02	12	29	39	14	432
				11—27	18	00	09	97	40	04	00	00	01	05	56	64	303
				23—47	00	00	00	00	00	00	00	00	00	00	01	00	01
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	69	38	29	173	125	16	03	02	13	34	96	138	736
Alexandria . . . . .	08	00	00	1—10	87	107	87	70	46	24	05	06	00	08	12	736	555
				11—27	09	24	28	07	06	00	00	02	00	04	30	71	181
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	96	131	115	77	52	24	05	08	00	12	42	174	736
Cairo . . . . .	00	00	00	1—10	00	00	00	00	00	00	00	00	00	00	00	00	00
				11—27	00	00	00	00	00	00	00	00	00	00	00	00	00
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	00	00	00	00	00	00	00	00	00	00	00	00	00
El-fayoum . . . . .	00	03	00	1—10	134	318	88	09	05	08	14	15	21	10	24	33	679
				11—27	02	13	32	00	00	00	00	04	04	03	01	03	62
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	136	331	120	09	05	08	14	19	25	13	25	36	741
El Minia . . . . .	08	01	00	1—10	290	47	04	04	03	34	17	05	08	03	09	50	474
				11—27	187	34	01	00	00	02	10	02	00	03	06	15	260
				28—47	00	00	00	00	00	00	00	00	01	00	00	00	01
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	477	81	05	04	03	36	27	07	09	06	15	65	735
ASSUIT . . . . .	02	01	00	1—10	82	12	07	14	11	17	17	12	10	18	66	125	391
				11—27	112	03	00	00	13	10	10	03	02	01	37	149	45
				28—48	00	00	00	00	00	00	00	00	00	01	03	01	05
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	194	15	07	14	24	27	27	20	12	20	106	275	741
Luxor . . . . .	00	00	00	1—10	92	93	57	38	21	26	50	45	28	44	60	153	707
				11—27	10	04	00	01	00	00	00	00	02	01	02	17	37
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥ 48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	102	97	57	39	21	26	50	45	30	45	62	170	744

**Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES**

MAY — 1980

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within the ranges of directions indicated												
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 314	285 / 314	315 / 344	All directions
Aswan . . . . .	03	00	00	1—10	301	94	10	09	05	37	38	09	03	16	12	44	587
				11—27	125	14	00	00	00	07	06	01	00	00	02	08	163
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	426	108	10	09	05	44	44	10	03	16	14	52	741
Sewa . . . . .	20	03	50	1—10	26	60	113	132	39	23	13	04	05	12	11	20	458
				11—27	14	16	30	48	28	13	13	01	00	03	15	35	216
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	40	76	143	180	67	36	26	05	05	15	26	55	674
Dakhla . . . . .	09	05	00	1—10	59	51	69	57	37	48	61	27	26	31	56	109	631
				11—27	24	24	11	00	00	00	00	00	00	03	07	30	99
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	83	75	80	57	37	48	61	27	26	34	63	139	730
Kharja . . . . .	00	01	00	1—10	222	98	13	12	11	13	18	10	15	18	27	88	545
				11—27	128	42	00	00	00	00	01	01	03	01	02	20	198
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	350	140	13	12	11	13	19	11	18	19	29	108	743
Hurgada . . . . .	14	00	00	1—10	29	59	15	07	29	33	06	06	00	12	90	60	352
				11—27	94	07	00	01	05	01	00	01	02	01	68	195	373
				28—47	00	00	00	00	00	00	00	00	01	00	00	04	05
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	124	66	15	08	34	34	06	07	03	13	158	259	730
Quseir . . . . .	01	00	00	1—10	156	49	16	13	25	54	21	06	03	28	61	177	614
				11—27	76	05	00	00	01	00	00	00	00	00	00	47	129
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00
				≥48	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speeds	232	54	16	13	26	54	21	06	03	28	61	224	743

**UPPER AIR CLIMATOLOGICAL DATA**  
**TABLE B 1—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER**  
**VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT**  
**STANDARD AND SELECTED PRESSURE SURFACES**  
**MAY — 1980**

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
M. Mafraq 0000 U.T.	Surface	31	1012m.*	1015m.*	1001m.*	31	17.6	22.6	14.0	31	13.2
	1000	31	112	154	37	31	17.3	43.0	13.2	31	12.3
	850	31	1501	1548	1431	31	16.6	24.0	6.2	31	2.2
	700	31	3128	3199	3048	31	6.7	11.1	1.9	31	—4.2
	600	31	4371	4457	4285	31	—2.4	0.2	—6.8	32	—11.1
	500	31	5724	5817	5635	31	—12.5	9.0	—15.5	30	—21.7
	400	29	7460	7585	7349	29	—24.6	—1.1	—27.4	28	—35.5
	300	28	9468	9645	9363	28	—40.3	—37.5	—44.0	27	—50.1
	250	27	10700	10876	10569	27	—49.3	—46.1	—53.5	27	—58.1
	200	23	12139	12328	12017	26	—55.9	—52.1	—59.4	24	—63.6
	150	21	13641	1469	13854	23	—58.2	—53.4	—62.0	13	—65.2
	100	9	16492	16679	16377	21	—63.7	—65.0	—70.5	—	—
	70	4	18701	18851	18587	0	—62.7	—60.6	—66.1	—	—
	60	4	19665	19740	10550	4	—61.6	—59.0	—64.1	—	—
	50	1	20809	20561	20670	4	—59.6	—55.3	—61.9	—	—
	40	—	23050	—	—	1	—55.9	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Petra 0000 U.T.	Surface	31	996 m.b.	1001m.b.	989m.*	31	20.9	30.6	15.0	31	07.3
	1000	30	101	146	042	31	16.2	—	—	31	11.8
	850	30	1503	1547	1453	30	18.8	28.8	06.4	30	—04.1
	700	30	3143	3143	3045	30	09.2	14.2	03.3	30	—10.0
	600	30	4407	4470	4279	30	00.3	03.2	—03.9	30	—15.6
	500	30	5838	5916	5697	30	—09.7	—06.9	—13.9	30	—24.5
	400	30	7523	7614	7371	30	—21.9	—18.4	—25.3	30	—36.4
	300	30	9574	9673	9423	30	—38.0	—35.0	—44.0	30	—49.3
	250	30	10803	10913	10651	30	—47.6	—45.0	—55.7	30	—57.6
	200	30	12253	12367	12095	30	—54.7	—49.3	—62.0	28	—63.8
	150	29	14089	14211	13887	29	—57.3	—53.7	—61.4	24	—66.7
	100	26	16626	16753	16441	26	—63.4	—60.3	—67.8	—	—
	70	19	18817	18905	18722	19	—63.8	—59.2	—69.9	—	—
	60	16	19817	19940	19730	16	—62.8	—59.8	—67.0	—	—
	50	16	20826	21074	20690	16	—61.4	—58.8	—64.3	—	—
	40	7	22317	22420	22200	7	—60.1	—59.1	—61.9	—	—
	30	6	24056	24164	23970	6	—57.4	—56.2	—59.0	—	—
	20	4	26640	26766	26550	4	—54.2	—54.2	—55.5	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface	30	985 m.b.	981m.b.	989m.*	30	26.7	32.0	19.0	30	2.1
	1000	30	64	93	23	—	—	—	—	—	—
	850	30	1499	1525	1475	30	24.6	32.8	18.0	30	—0.2
	700	30	3162	3209	3131	30	11.9	16.2	9.7	30	—8.1
	600	30	4430	4492	4403	30	—2.2	4.8	—0.4	30	—13.8
	500	30	5834	5915	5831	30	—8.4	—6.0	—12.8	30	—24.6
	400	30	7565	7651	7511	30	—20.7	—19.0	—23.8	30	—35.6
	200	30	9623	9694	9561	30	—36.3	—39.3	—34.1	30	—49.0
	250	30	10875	10992	10794	30	—44.8	—40.3	—44.0	30	—56.7
	200	29	12339	12472	12256	29	—51.5	—34.1	—48.5	29	—63.4
	150	29	14167	14282	14076	29	—61.5	—55.7	—55.6	7	—68.9
	100	29	16621	16723	16537	29	—72.9	—68.8	—66.3	—	—
	70	25	18705	18833	18622	25	—70.6	—63.0	—78.7	—	—
	60	17	19655	19570	19760	17	—66.9	—64.5	—75.7	—	—
	50	17	20739	20883	20638	17	—63.6	—60.6	—71.6	—	—
	40	9	22177	22300	22050	9	—53.3	—59.0	—67.0	—	—
	30	7	23923	24030	23820	7	—55.6	—51.3	—61.1	—	—
	20	3	26468	26555	26400	3	—48.2	—39.2	—57.1	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The Number of cases the element has been observed during the month,

\* The atmospheric pressure corrected to the elevation of the radiosonde station.

## UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER  
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT  
STANDARD AND SELECTED PRESSURE SURFACES

MAY— 1980—

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm.)				Temperature (°C)				Dew point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 UT	Surface	30	1010mb.	1015mb.	1005mb.	30	23.1	35.0	19.6	30	14.2
	1000	30	115	158	71	30	22.1	34.6	18.0	30	13.3
	850	30	1511	1560	1437	30	16.6	25.0	5.8	30	1.4
	700	30	3136	3225	3022	30	7.2	12.6	2.0	30	—7.0
	600	30	4385	4496	4257	30	—1.7	3.9	—5.0	30	—14.2
	500	30	5809	5949	5671	30	—11.8	7.0	—16.1	30	—21.5
	400	30	7480	7630	7335	30	—23.6	—19.6	—27.5	30	—35.2
	300	30	9519	9681	9353	29	—39.2	—33.5	—43.0	29	—50.5
	250	29	10744	10938	10539	29	—48.5	—42.1	—53.0	29	—58.2
	200	26	12187	12434	12035	26	—54.0	—49.7	—29.5	24	—64.4
	150	25	14013	12460	16866	25	—57.0	—51.0	—62.0	16	—67.2
	100	17	16556	14272	16389	19	—63.0	—58.9	—67.5	1	—
	70	12	18763	16862	18522	12	—62.7	—59.0	—71.0	—	—
	60	5	19692	18972	19620	5	—60.2	—57.4	—61.0	—	—
	50	3	20952	19899	20838	3	—58.0	—56.0	—60.5	—	—
	40	—	—	21071	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	31	994mb.	1000mb.	986mb.	31	32.0	40.0	24.6	31	40.7
	1000	31	091	140	012	1	24.6	—	—	1	—03.2
	850	31	1521	1564	1162	31	12.5	28.8	10.2	30	—11.0
	700	30	3170	3226	3073	30	10.7	16.3	04.0	30	—16.1
	600	30	4443	4514	4312	35	02.1	05.8	—02.0	29	—24.0
	500	29	5878	5980	5743	29	—07.8	—04.3	—11.9	29	—35.3
	400	29	7578	7695	7459	29	—19.7	—16.1	—23.5	29	—48.6
	300	29	9647	9783	9569	29	—35.1	—32.4	—38.3	28	—56.3
	250	28	10893	11052	10749	28	—44.0	—39.3	—46.8	28	—62.6
	200	28	12365	12563	12220	28	—51.1	—45.2	—45.8	27	—65.2
	150	27	14229	14466	14094	27	—53.6	—49.3	—57.0	15	—68.5
	100	26	16804	16925	16674	26	—57.7	—51.4	—63.1	—	—
	70	22	19051	19205	18898	22	—58.3	—51.7	—63.1	—	—
	60	17	20554	20218	19900	17	—56.5	—54.0	—60.8	—	—
	50	17	21192	21347	20998	17	—52.2	—49.7	—56.5	—	—
	40	10	22743	22950	22530	10	—47.8	—44.0	—51.5	—	—
	30	9	24538	24736	24321	9	—42.8	—38.2	—45.1	—	—
	20	5	27383	27562	27183	5	—33.7	—28.9	—36.8	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	31	985mb.	989mb.	982mb.	31	39.5	46.6	33.0	31	5.3
	1000	31	85	93	22	—	—	—	—	—	—
	850	31	1524	1552	1494	—	27.0	33.9	19.6	31	—3.5
	700	31	3195	3235	1494	31	14.0	18.3	10.6	31	—11.9
	600	31	4469	4522	3148	31	3.5	6.0	1.1	31	—25.7
	500	31	5912	5982	4414	31	—7.3	—5.0	—10.5	31	—36.4
	400	31	7623	7689	5859	31	—19.8	—17.7	—21.2	31	—50.1
	300	31	9695	9759	7560	31	—35.0	—30.0	—37.7	31	—55.4
	250	31	10943	11302	9634	31	—43.0	—36.1	—45.9	31	—61.4
	200	29	12423	21562	10861	31	—50.0	—43.1	—55.2	29	—70.2
	150	28	14270	14470	12328	29	—59.2	—52.0	—63.3	—	—
	100	28	16747	17040	14151	28	—72.0	—69.4	—63.8	—	—
	70	22	18839	18891	16591	28	—65.6	—51.1	—70.0	—	—
	60	21	19791	19980	18995	22	—61.8	—58.7	—64.0	—	—
	50	20	20872	20950	19620	12	—52.1	—54.4	—61.7	—	—
	40	21	22392	22500	20710	20	—57.1	—49.0	—55.3	—	—
	30	21	24140	24222	24012	21	—49.4	—44.6	—45.1	—	—
	20	2	26777	26809	26745	12	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The Number of cases the element has been observed during the month.

\*The atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 2.—MEAN AND EXTREME VALUES AT THE FREEZING LEVEL AND THE TROPOPAUSE.  
THE HIGHEST WIND SPEED IN THE UPPER AIR

1200 T.U. MAY 1930

Station	Freezing Level									First Tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)	Pressure (mb.)	Direction (000—360)		
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Speed in Knots		
0000 U.L	M, Matruh (A)	4034 (31)	627 (31)	-10.3 (31)	4500	598	-30.3	3330	673	-2.0	12131 (21)	203 (21)	-57.4 (21)	16250	10.7	-67.3	10830	244	-54.6	11260	230	255	126
	Helwan . . .	4406 (30)	600 (30)	-15.8 (30)	4900	570	-21.5	3650	653	-33.4	11940 (26)	198 (26)	-56.0 (26)	15470	121	-64.3	11220	230	-59.6	14460	140	310	132
	Aswan . . (A)	4715 (30)	579 (30)	-18.9 (30)	5080	559	-9.6	4340	604	-8.3	16655 (21)	105 (21)	-71.9 (21)	18200	76	-73.8	11650	220	-53.3	13590	164	300	104
1200 T.U	M. Matruh (A)	(N)	(N)	(N)	4920	510	-22.7	3380	669	-3.0	(N)	(N)	(N)										
	Helwan . . .	4136 (30)	619 (30)	-13.2 (30)	5350	542	-33.3	3890	635	-25.1	12174 (21)	203 (21)	-54.4 (21)	13700	190	-53.2	10800	241	-51.2	11010	275	240	150
	Aswan . . (A)	4724 (29)	508 (29)	-17.2 (29)	5250	549	-16.3	4740	584	-12.8	12724 (26)	191 (26)	-53.6 (26)	15090	131	-58.5	11320	233	-50.1	12690	190	300	125
		4643 (31)	566 (31)	-18.9 (31)							17277 (22)	91 (22)	-71.7 (22)	18450	39	-72.2	15700	121	-65.4	12400	199	250	110

N = The number of cases the element has been observed during the month.

**Table B3.— NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND  
THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**  
**MERSB MITRUH0000 T-U MAY 1980**

Time	pressure Surface (Millibar)	Wind per specified range of directions (000—360°)														Number of Calm winds (TN)	Mean Scalar wind speed (knots)													
		345°—015°		045°—075°		105°—135°		165°—195°		225°—255°		285°—315°																		
		345°	015°	045°	075°	105°	135°	165°	195°	225°	255°	285°	315°	/	/															
N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m													
1200 T.U.	Surface 1000	1	8	1	6	1	7	4	10	10	8	3	10	0	—	0	—	2	4	2	13	4	10	0	31	9				
		1	14	1	11	1	31	4	18	10	14	3	12	0	0	0	—	4	18	4	18	3	14	0	31	16				
		2	13	0	—	2	16	4	16	2	16	0	—	5	31	1	12	1	14	4	25	4	23	3	18	0	31	21		
		1	10	1	14	1	31	0	—	1	9	1	20	1	42	7	22	2	31	10	30	3	23	0	—	0	31	26		
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	41	6	34	11	33	4	34	4	26	0	—	0	31	34
		0	—	0	—	0	—	0	—	0	—	0	—	1	73	14	14	40	12	43	3	32	1	24	0	—	0	31	42	
		1	51	0	—	0	—	0	—	0	—	0	—	0	—	13	23	13	22	2	14	0	—	0	—	0	29	20		
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	65	65	11	28	13	69	2	20	0	—	0	—	24	01	
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	24	4	48	3	30	0	—	0	—	14	60		
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	61	2	44	1	64	0	—	0	—	0	12	68		
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	60	4	43	0	—	0	—	0	—	3	64			
		0	—	0	—	0	—	0	—	0	—	0	—	1	52	2	38	1	62	0	—	0	—	0	—	3	44			
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	23	1	23	0	—	0	—	0	—	2	18			
		1	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—			
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
0000 T.U.	Surface 1000	4	10	4	11	1	14	9	13	1	12	0	—	0	—	0	—	0	—	3	21	8	12	0	30	14				
		2	10	3	16	2	18	9	14	1	23	6	19	3	25	1	02	1	41	9	33	8	29	2	26	9	14	0		
		3	14	0	—	0	—	1	2	2	16	0	—	2	9	0	—	2	44	01	34	9	13	3	25	1	33	0		
		1	16	1	10	1	2	2	10	0	—	0	—	0	—	0	—	3	32	11	04	9	43	4	19	3	30	24		
		2	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	20	11	48	12	50	1	32	2	30	46		
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	36	11	29	13	48	1	14	0	24	20		
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	66	11	54	2	24	0	0	24		
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	66	9	77	0	—	0	—	13	43	
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	92	5	65	0	—	0	—	8	64	
		0	—	0	—	0	—	0	—	0	—	0	—	1	22	0	—	1	28	0	3	21	0	—	0	—	4	62		
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	18			
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—			
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—			
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—			
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—			
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—			
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—			
		0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—			

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B<sub>3</sub>. (contd) — NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES  
HELWAN MAY 1980

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360) <sup>a</sup>														Number of calm winds	Total Number of Observations (TN)	Mean scalar-wind Speed (knots)									
		345 014		015 044		045 074		075 104		105 134		135 164		165 194		195 224		225 254		255 284		285 314					
		N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m	N	m				
0000 U.T.	Surface of station	1	07	6	10	14	14	4	12	1	10	0	—	0	—	0	—	0	—	1	15	4	10	0	31	12	
	1000	0	—	1	15	0	—	0	—	0	—	3	11	0	—	1	19	1	09	0	—	0	—	0	0	1	15
	850	3	13	4	15	4	12	3	20	0	—	1	09	0	—	0	—	2	19	0	—	7	19	9	25	4	24
	700	2	26	3	24	2	18	0	—	1	09	0	—	0	—	1	26	0	—	4	29	10	36	7	20		
	600	5	21	0	—	2	12	0	—	0	—	1	09	0	—	0	—	0	—	4	16	14	35	7	24		
	500	4	18	0	—	1	17	0	—	0	—	0	—	0	—	0	—	0	—	4	28	18	38	5	30		
	400	0	—	1	19	1	20	0	—	0	—	0	—	0	—	0	—	5	27	14	50	6	43	0	29		
	300	2	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	21	20	48	4	39	0	42		
	250	1	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	38	9	57	6	58	0	26		
	200	1	44	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	38	11	55	4	51	0	17		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	33	6	48	2	33	0	11		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	22	3	65	0	1	5	48		
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	—	3	73	1	10	0	4		
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	100	1	37	1	10	0	3		
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	30		
	40	0	—	0	—	0	—	0	—	1	30	0	—	0	—	0	—	0	—	0	—	0	—	0	28		
	30	0	—	0	—	0	—	0	—	1	28	0	—	0	—	0	—	0	—	0	—	0	—	0	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface of station	5	11	11	16	3	14	0	—	0	—	0	—	0	—	1	07	3	14	1	10	6	10	1	10		
	1000	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	31		
	850	5	09	2	12	6	08	5	18	0	—	1	07	0	—	0	—	5	16	1	07	5	12	1	13		
	700	3	10	2	12	2	16	2	14	0	—	1	12	0	—	4	26	4	18	2	18	10	19	0	30		
	600	3	21	1	05	2	14	0	—	0	—	1	108	0	—	0	—	3	23	3	35	7	25	9	22		
	500	2	10	1	09	0	—	1	04	0	—	0	—	0	—	0	—	5	39	12	32	8	30	0	29		
	400	4	22	0	—	0	—	1	04	0	—	1	15	0	—	0	—	6	38	13	40	5	38	0	29		
	300	2	32	1	07	0	—	0	—	1	04	0	—	0	—	0	—	4	58	15	43	5	45	0	28		
	250	1	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	62	11	46	9	45	0	42		
	200	56	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	42	8	60	6	60	0	22			
	150	43	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	46	8	60	5	58	0	20			
	100	0	—	0	—	1	25	0	—	0	—	0	—	0	—	0	—	5	50	6	54	2	38	0	14		
	70	23	0	—	0	—	0	—	1	25	0	—	0	—	0	—	2	31	3	18	2	22	0	9			
	60	32	2	26	0	—	0	—	1	27	0	—	0	—	1	09	0	—	3	32	0	—	1	20			
	50	3	17	0	—	0	—	1	27	0	—	0	—	0	—	1	10	1	31	1	47	0	—	0	9		
	40	0	—	2	12	0	—	0	—	0	—	0	—	0	—	2	16	0	—	1	53	0	—	0	7		
	30	0	—	1	15	1	17	1	26	0	—	0	—	0	—	1	15	0	—	0	—	0	—	0	5		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4			
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

TABLE B 3, (contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES  
 (ASWAN) MAY — 1980

Time	Pressure Surface Millibar	Wind between range of direction (000°–360°)														Number of calm winds	Total number of observations (T.N.)	Mean scalar wind speed (knots)										
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314						
		N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m	N (ff)	m							
0000 U.T.	Surface of station	17	10	1	5	0	—	3	6	2	8	0	—	0	—	0	—	1	8	2	9	4	14	0	30	10		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	850	5	12	4	14	2	11	2	11	1	7	0	—	1	24	1	12	3	16	1	14	3	15	7	12	0		
	700	1	16	1	14	0	—	0	—	0	0	0	—	0	—	0	—	2	26	4	15	4	15	2	25	0		
	600	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	3	22	5	23	4	20	1	39	0		
	500	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	1	28	8	36	4	29	0	0	13		
	400	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	1	15	4	49	7	41	0	0	13		
	300	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	2	23	6	69	5	57	0	0	13		
	250	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	2	36	7	72	3	89	0	0	57		
	200	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	2	64	7	72	3	74	0	0	75		
	150	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	5	42	4	35	0	0	0	0	12		
	100	0	—	0	—	0	—	0	—	0	14	0	—	0	—	0	—	1	20	0	0	1	17	0	0	9		
	70	1	16	0	—	0	—	0	—	0	1	20	0	—	0	—	0	—	1	11	0	0	0	0	5	16		
	60	0	—	0	—	0	—	0	—	0	1	20	0	—	0	—	0	—	1	6	0	0	1	8	0	3		
	50	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	0	0	0	0	0	0	0	3			
	40	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	0	0	0	0	0	0	0	1			
	30	—	—	—	—	—	—	—	—	—	0	0	—	0	—	0	—	0	0	0	0	0	0	0	0			
	20	—	—	—	—	—	—	—	—	—	0	0	—	0	—	0	—	0	0	0	0	0	0	0	0			
	10	—	—	—	—	—	—	—	—	—	0	0	—	0	—	0	—	0	0	0	0	0	0	0	0			
1200 U.T.	Surface of station	13	10	1	12	0	—	0	—	1	2	2	8	4	10	1	12	2	8	1	8	0	—	5	11	1	31	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	850	6	15	3	8	2	3	0	—	0	4	0	—	1	10	6	12	2	12	1	16	4	13	6	12	0	31	12
	700	4	20	1	10	1	20	0	—	1	27	0	—	1	20	4	13	9	13	7	21	3	19	0	0	31	16	
	600	4	16	1	8	1	27	0	—	0	1	2	1	16	0	—	4	21	9	24	10	22	2	11	0	30	17	
	500	1	18	2	9	0	—	0	—	1	29	0	—	1	18	0	—	5	16	4	27	8	27	2	18	0	30	24
	400	0	—	0	—	0	—	0	—	1	27	1	82	0	—	0	—	1	19	13	35	11	48	3	33	0	29	37
	300	0	—	0	—	0	—	0	—	1	27	1	82	0	—	0	—	1	28	12	49	13	58	1	51	0	29	53
	250	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	1	17	1	53	11	66	6	80	3	51	63
	200	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	1	65	10	65	6	59	0	0	17	63	
	150	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	1	30	5	29	2	46	2	25	1	49	0
	100	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	0	0	0	0	0	0	0	0	12	34	
	70	0	—	0	—	0	—	0	—	3	9	0	—	1	10	0	—	0	0	0	0	0	0	0	0	0	5	11
	60	0	—	0	—	0	—	0	—	2	13	0	—	1	12	0	—	0	0	0	0	0	0	0	0	0	4	10
	50	0	—	0	—	0	—	0	—	1	8	0	—	1	12	0	—	0	0	0	0	0	0	0	0	0	3	14
	40	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	0	0	0	0	0	0	0	0	0	2	16
	30	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	0	0	0	0	0	0	0	0	0	0	0
	20	0	—	0	—	0	—	0	—	0	0	0	—	0	—	0	—	0	0	0	0	0	0	0	0	0	0	0
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

= The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

## MONTHLY REVIEW OF AGROMETEOROLOGICAL STATIONS

### MERSA MATRUH — MAY 1980

The mean daily air temperatures was nearly equal to normal. The mean daily relative humidity was remarkably above normal. The total monthly rainfall was a trace, while the normal is 3.0 mm.

Weather was mainly or relatively cold, except for a hot wave in the last four days. Maximum temperatures ranged between 20.0°C on the 4 th and 37.4°C on the 30 th. Minimum temperatures ranged between 11.7°C on the 15 th and 19.0° on the 30 th.

The mean daily actual sunshine duration was 0.8 hr. below normal. The mean daily wind speed at 1.5 metre height was 0.5m. / sec. below normal.

The highest maximum soil temperatures were around those of last May, with departures between —1.1°C at 100 cms. depth. The lowest minimum soil temperatures were around those of last May, with Departures between — 1.6°C at 200 cms. depth and +0.4°C at 50 cms. depth.

### TAHRIR — MAY 1980

The mean daily air temperature was nearly equal to normal. The mean daily relative humidity was below normal. The total monthly rainfall was a trace while the normal is 4.9 mms. t

Weather was changeable. Maximum temperatures ranged between 25.6°C on the 13 th and 43.6°C on the 20 th. Minimum temperatures ranged between 9.6°C on the 15 th. and 18.0°C on the 20 th.

The mean daily actual sunshine duration was 1.2 hrs. less than normal. The mean daily wind speed at 1.5 metre height was 0.2 m./sec. less than normal. The mean daily pan evaporation was 1.61 mm. less than normal.

The highest maximum soil temperatures was around normal, with departures between —0.8°C at 600 cms. depth, and + 2.2°C at 2 cms. depth. The lowest minimum soil temperatures were around normal, with departures between —0.9°C at 600 cms. and +1.3°C at 2 cms. depth.

### CAHTIM — MAY 1980

The mean daily air temperatures was nearly equal to normal. The mean daily relative humidity was normal. The total monthly rainfall was a trace, while the normal is 6.5 mms.

Weather was changeable. Maximum temperatures ranged between 25.4°C on the 4 th and 42.6°C on the 20 th. Minimum temperatures ranged between 10.4°C on the 5 th and 16.9°C on the 19 th.

— —

The mean daily sunshine duration was 0.4 hr below normal. The mean daily wind speed at 1.5 metre height was 0./m.\sec. below nor normal. The mean dally pan evaporation was 2.23 mms. above normal.

The highest maximum soil tempetatute were above normal, with depattutes between  $0.1^{\circ}\text{C}$  at 300 cms. depth and  $4.2^{\circ}\text{C}$  at 5 cms. depth

The lowest minimum soil tempratures were above notmal, ^ith depattutes between  $0.2^{\circ}\text{C}$  at 300 cms. depth and  $2.7^{\circ}\text{C}$  at 2 cms. depth.

#### **ASYOUT — MAY 1980**

The mean daily air temperature was almost equal to that of last May. The mean daily relative humidity was less than that of last May. The month was rainless as well as last May.

Weather was, in genetas, hot at day and cold at night. Maximum temperatures ranged between  $28.8^{\circ}\text{C}$  on the 13 th and  $45.4^{\circ}\text{C}$  on the 31 st. Minimum temperatures ranged between  $12.6^{\circ}\text{C}$  on the 31 st. Minimum temperatures ranged between  $12.6^{\circ}\text{C}$  on the 5 th and  $24.6^{\circ}\text{C}$  on the 21 th.

The mean daily actual sunshine duration was 0.5 hr. above that of last May. The mean daily pan evaporation was 2.15 mms. above that of last May. The mean daily wind speed at 1.5 metre height was equal to 0.5 m./sec.

The highest maximum soil temeratures were around those of last May, with departures between -  $0.3^{\circ}\text{C}$  at 300cms. depth and +  $2.0^{\circ}\text{C}$  at 10cms. depth. The lowest minimum soil temptatutes were around those of last Maywith departures between -  $0.2^{\circ}\text{C}$  at 2cms., 10cms. and 20cms. depth and +  $0.4^{\circ}\text{C}$  at 300 cms. depth.

#### **EL- KHARGA — MAY 1980**

The mean daily air temperature and relative humidity were above normal. The month was rainless while the total monthly rainfall is 0.2mms.

Weath was hot in general. Maximum temperatures ranged between  $30.5^{\circ}\text{C}$  on the 20th. Minmum temperatures ranged between  $13.0^{\circ}\text{c}$  on the 11th and  $30.0^{\circ}\text{c}$  on the 27th.

The mean daily actual sunshine duration was 0.5he. below normal. The mean daily pan evaporation was 1.47mms. below normal. The mean dailp wind speed at 1.5 metre height was 0.7 m./sec. below normal.

The highest maximum soil temperatures were above normal, with departures between  $0.2^{\circ}\text{C}$  at 200cms. depth and  $6.2^{\circ}\text{C}$  at 5crns. depth. The lowest minimum soil tempe- ratures were around normal, with departures between -  $1.4^{\circ}\text{C}$  at 5cms. depth and +  $0.8^{\circ}\text{C}$  at 100cms. depth.

**TABLE C 1 — AIR TEMPERATURE AT 1½ METRES ABOVE GROUND  
MAY — 1980**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°
M. Matruh . . . . .	25.1	15.5	20.1	17.6	20.9	24.0	21.0	24.0	24.0	22.4	10.4	2.4	0.8	0.1	0.0	0.0
Tahrir . . . . .	32.3	13.8	22.4	17.5	24.2	24.0	24.0	24.0	24.0	20.9	13.1	7.5	3.1	0.9	0.2	0.0
Bahtrm . . . . .	32.1	13.7	22.8	17.7	24.7	24.0	24.0	24.0	24.0	20.5	14.1	8.4	3.8	1.0	0.2	0.0
Assiut . . . . .	38.2	17.5	27.4	22.3	29.3	24.0	24.0	24.0	24.0	23.5	19.8	14.0	8.6	4.7	1.3	0.0
Kharga . . . . .	39.9	21.5	31.0	26.8	32.5	24.0	24.0	24.0	24.0	23.9	22.2	18.5	13.2	6.9	3.1	0.3

**Table C— EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND,  
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5 cms OVER DIFFERENT FIELDS.  
MAY 1980**

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh . . . . .	37.4	30	20.0	4	19.0	30	12.4	4.23	8.6	15	—	—
Tahrir . . . . .	43.6	20	25.6	13	18.0	20	9.6	15	8.2	15	7.2	15
Bahtrm . . . . .	42.6	20	25.4	4	17.2	31	10.4	5	6.8	15	5.8	24
Assiut . . . . .	45.4	20.31	23.8	13	24.6	21	12.6	5	8.6	5	—	—
Kharga . . . . .	47.8	20	30.5	13	30.0	27	13.0	16	10.5	5	—	—

**Table C 3—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, AND VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION AND RAINFALL**

MAY — 1980

STATION	Solar + Sky Radiation 9 m. cal/cm <sup>2</sup>	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mm/s)				Evaporation (mm/s)		Rainfall (m)						
		Total Actual	Total Possible	%	Duration in hours		Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	(Pan class A)	Total Amount at Monthly	Max. Fall in one day	Date
					> 90 %	> 80 %															
M. Matruh . . . . .	—	310.1	426.5	72	—	—	79	63	27	30	13.5	13.7	19.6	31	8.7	8	6.6	—	Tra	Tra	19.24
Tahrir . . . . .	—	308.7	424.6	73	—	—	55	31	8	20	10.3	9.7	16.3	19	4.8	6	7.9	9.32	Tra	Tra	20.21
Bahtrm . . . . .	—	315.7	423.6	74	—	—	54	30	13	6.29	10.2	9.6	13.9	19	5.3	2	10.8	12.86	Tra	Tra	21
Assiut . . . . .	—	357.1	417.4	84	—	—	29	13	05	28	7.3	6.8	17.8	24	2.3	6	11.8	13.83	0.0	0.0	—
Kharga . . . . .	—	337.0	414.0	81	—	—	26	18	07	2	8.2	9.4	17.5	27	2.3	2	19.9	18.56	0.0	0.0	—

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS  
IN DIFFERENT FIELDS (cms.)**

**MAY 1980**

STATION	Highest (A) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
M. Matruh . . . .	H	40.7	38.9	32.7	28.6	24.6	22.4	21.2	—	—	—	—	—	—	—	—	—
	L	17.3	17.4	18.1	19.6	20.4	20.0	19.0	—	—	—	—	—	—	—	—	—
Rahrir . . . . .	H	53.8	46.7	40.7	34.2	30.3	26.9	24.5	23.7	36.3	33.8	30.0	27.4	26.9	25.0	23.0	—
	L	22.2	20.6	20.9	23.6	25.1	23.9	22.4	22.4	18.8	18.7	18.3	19.6	22.3	21.8	21.1	—
Bahitim . . . . .	H	54.6	46.9	38.1	32.0	27.8	25.7	24.0	23.3	38.3	30.5	28.6	25.6	24.4	22.2	21.3	—
	L	24.8	23.0	23.6	26.2	25.3	23.7	23.0	22.9	18.2	18.4	19.6	21.5	21.6	20.7	20.3	—
Assiut . . . . .	H	63.9	52.4	44.2	36.6	31.3	23.3	25.9	24.7	—	—	—	—	—	—	—	—
	L	27.9	24.4	25.6	28.4	28.0	25.9	24.5	24.3	—	—	—	—	—	—	—	—
Kharga . . . . .	H	70.7	55.7	46.4	40.2	33.0	30.6	28.0	27.6	—	—	—	—	—	—	—	—
	L	16.3	19.4	23.6	27.7	29.1	28.0	26.6	27.1	—	—	—	—	—	—	—	—

**Table C 5.—SURFACE WIND**

**MAY 1980**

STATION	Wind Speed m/sec at 2 metres			Days with surface wind speed at (10 metres)								Max. Gust 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knot	≥ 30 knots	≥ 35 knots	≥ 40 knots	value knots	Date	
M. Matruh	3.4	2.5	4.4	31	27	17	9	3	0	0	38		2
Tahrir	2.2	1.6	2.9	31	18	4	3	1	1	0	45		12
Bahitim	2.5	1.7	3.2	31	19	5	1	1	1	0	48		12
Assiut	0.5	0.4	0.6	24	13	3	2	0	0	0	33		12
Kharga	3.3	2.6	3.9	28	24	10	5	0	0	0	32		21

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*The Chairman*

**Mostafa Hassan Aly**

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**THE ARAB REPUBLIC OF EGYPT**

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# **MONTHLY WEATHER REPORT**

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**VOLUME 23**

**NUMBER 6**

**JUNE 1980**

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**U.D.C. 551. 506. 1 (62)**

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**THE EGYPTIAN METEOROLOGICAL AUTHORITY  
CAIRO**

## **PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO**

In fulfilment of its duties, the Egyptian Meteorological Authority issues several reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO.

### **THE MONTHLY WEATHER REPORT**

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

### **THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT**

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

### **THE ANNUAL REPORT**

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

### **CLIMATOLOGICAL NORMALS FOR EGYPT**

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

### **METEOROLOGICAL RESEARCH BULLETIN**

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

### **TECHNICAL NOTES**

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.



THE ARAB REPUBLIC OF EGYPT

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# MONTHLY WEATHER REPORT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY  
CAIRO

## CONTENTS

	<i>Page</i>
<b>General Summary of Weather Conditions . . . . .</b>	<b>1</b>

### SURFACE DATA

<b>Table A1.—Monthly values of the Atmospheric Pressure, Air Temperature, Relative Humidity, Bright Sunshine Duration, and Piche Evaporation . . . . .</b>	<b>2</b>
“ A2.—Maximum and Minimum Air Temperatures . . . . .	3
“ A3.—Sky Cover and Rainfall . . . . .	4
“ A4.—Number of Days of Occurrence of Miscellaneous Weather Phenomena . . . . .	5
“ A5.—Number in Hours of Occurrences of Concurrent Surface Wind Speed and Direction Recorded within Specified Ranges . . . . .	6,7

### UPPER AIR DATA

<b>Table B1.—Monthly Means and Monthly Absolute Highest &amp; Lowest Values of Altitude, Air Temperature &amp; Dew point at Standard and Selected Pressure Surfaces . . . . .</b>	<b>8,9</b>
“ B2.—Mean and Extreme values of The Freezing Level and The Tropopause. The Highest Wind Speed in The Upper Air . . . . .	10
“ B3.—Number of Occurrences of Wind Direction within Specified Ranges and The Mean Scalar Wind Speed at the Standard and Selected Pressure Surfaces . . . . .	11—13

### AGRO-METEOROLOGICAL DATA

<b>Reviews of Agro-meteorological Stations . . . . .</b>	<b>14,15</b>
<b>Table C1.—Air Temperature at 1½ metres above Ground . . . . .</b>	<b>16</b>
“ C2.—Extreme Values of Air Temperature at 1½ metres above Ground, Absolute Minimum Air Temperature at 5 Cms Above Ground over Different Fields . . .	16
“ C3.—(Solar+Sky) Radiation, Duration of Bright Sunshine, Relative Humidity and Vapour Pressure at 1½ Metres Above Ground, Evaporation and Rainfall . . .	16
“ C4.—Extreme Soil Temperature at Different Depths in Different Fields . . . . .	17
“ C5.—Surface wind . . . . .	17

Note: For explanatory notes on the tables please refer to Volume 21 number 1 (January 1975).

# GENERAL SUMMARY OF WEATHER CONDITIONS

JUNE 1980

Generally mild weather in the north, changeable in Cairo, very hot in Middle and Upper Egypt, intervened by four hot waves.

## PRESSURE DISTRIBUTION

Generally speaking, the Indian monsoon trough advanced westwards, over East Mediterranean, in the two periods (12th-20th) and (27th-30th) and retreated eastwards in the periods (1st-11th) and (21st-26th).

The monthly mean pressure over Egypt was 1009.8 mb.

## SURFACE WIND

Surface winds were NE by to NW by, light to moderate, became fresh on some days and caused rising sand in scattered places.

## TEMPERATURE

The prevailing weather in the northern parts was generally mild, where temperature oscillated below normal, except for two light hot waves around the (2th and 30th), Cairo experienced a changeable weather with four hot waves of which the last was

severe. Generally hot to very hot weather prevailed over Middle and Upper Egypt.

The highest maximum air temperature was 48.2°C in ASWAN on 2nd.

The lowest maximum air temperature was 22.7°C in MERSA MATROH on 1st.

The highest minimum air temperature was 31.0°C in ASWAN on 1st and 3rd.

The lowest minimum air temperature was 13.8°C in MERSA MATROH on 6th.

## PRECIPITATION

The month was rainless as usual.

## OTHER WEATHER PHENOMENA

Morning mist was observed on some days over scattered places of lower Egypt and Cairo Rising was sometimes observed in scattered places.

Chairman (M.A. BADRAN)

(Board of Directors)

Cairo JUNE 1980

**SURFACE DATA**  
**Table A 1. — MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,  
 RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION**  
**JUNE — 1980**

STATION	Air Temperature °C										Relative Humidity %	Bright Sunshine Duration (Hours)			Piche Evap.	
	Atmospheric Pressure (mbs) M S. L.		Maximum		Minimum		Dry Bulb		Wet Bulb			Total Actual	Total Possible	%		
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average	A+B 2	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	D.F. Normal or Average	D.F. Normal or Average	D.F. Normal or Average		
El Sallum . . . .	1013.2	0.4	29.8	0.1	19.0	-0.9	24.4	23.9	-0.6	18.5	-1.3	60	50	—	6.9	
Mersa Matro . . . .	1013.0	0.3	26.5	-1.6	17.3	-1.2	21.9	22.1	-1.3	19.9	0.3	83	73	365.1	425.0	86
Alexandria . . . .	1012.2	0.1	28.2	-0.7	19.7	-0.5	23.9	23.9	-0.5	19.8	-0.7	68	58	361.4	424.7	85
Port Said . . . .	1011.4	0.4	28.3	-0.2	21.5	-0.9	24.9	24.4	-0.5	21.1	-0.2	73	63	360.8	424.8	85
Tanta . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo . . . .	1010.7	-0.2	34.8	-0.1	19.7	-0.5	27.2	26.8	-0.4	19.3	-0.3	50	40	—	—	14.2
Fayoum . . . .	—	—	37.2	0.2	19.3	-1.2	28.2	28.0	-0.6	19.4	-0.1	45	35	—	—	8.9
Minya . . . .	1009.2	-0.7	37.3	0.7	19.2	0.1	28.2	28.4	0.5	18.6	-0.4	38	38	374.8	416.6	90
Assout . . . .	1009.1	0.2	37.4	-0.4	20.7	-0.9	29.0	29.3	-0.5	17.4	-0.7	28	18	—	—	20.7
Iz or . . . .	1006.8	0.0	41.7	0.0	23.1	1.0	32.4	32.3	-0.1	19.1	-0.2	25	15	—	—	12.2
Aswan . . . .	1006.3	-0.4	42.2	0.3	25.7	1.0	33.9	34.0	0.6	18.0	0.6	15	5	366.1	407.6	90
Sewa . . . .	1011.8	-0.3	37.0	-0.4	20.0	0.2	28.5	29.0	0.1	17.2	-1.0	28	18	420.7	419.4	100
El-Baharia . . . .	1010.1	-0.8	37.4	0.6	20.1	0.1	28.7	28.8	0.3	18.2	-0.3	34	24	—	—	10.3
E'-Farafair . . . .	1001.0	-0.6	38.0	0.5	20.7	0.5	29.3	29.5	0.4	16.7	-0.4	23	13	—	—	19.6
E'-Dikhla . . . .	1009.8	0.0	38.7	0.3	21.0	-1.4	29.8	30.4	-0.1	16.6	-1.1	19	9	—	—	19.8
E'-Kharga . . . .	1008.8	-0.1	40.4	1.5	23.6	0.0	32.0	32.6	1.1	21.1	3.3	38	28	365.9	410.7	89
E'-Hurgada . . . .	1006.9	-0.2	32.2	0.0	24.7	1.0	28.4	28.7	0.3	19.6	-0.7	39	29	373.4	415.4	90
El-Quseia . . . .	1006.1	-1.1	31.7	-0.4	25.2	-0.2	28.4	28.6	-0.2	20.8	0.0	47	37	—	—	10.0

TABLE A2.— MAXIMUM AND MINIMUM AIR TEMPERATURE  
JUNE — 1980

Station	Maximum Temperature °C										Grass Min Temp.	Minimum Temperature °C									
	No. of Days with Max-Temp.					Mean	D. From Normal	No. of Days with Min. Temp.					Highheat	Date	Lowert	Date	No. of Days with Min. Temp.				
	Highheat	Date	Lowort	Date	<25	<30	<35	<40	<54	<10		<5					<0	<5			
El-Sallum . . . .	37.6	36	23.6	3	27	15	03	00	00	17.5	—	24.8	26	15.0	5	00	00	00	00	00	
Mersa Matroh . . . .	31.6	30	22.7	1	21	03	00	00	00	15.2	—	20.0	15	13.8	6	00	00	00	00	00	
Alexandria . . . .	32.6	30	25.0	4.5	28	05	00	00	00	16.7	—	23.0	27	14.0	7	00	00	00	00	00	
Port Said . . . .	33.1	17	25.1	5	30	05	00	00	00	20.6	—	23.9	27.30	18.3	7	00	00	00	00	00	
ElArish . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Gaza . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cairo . . . .	40.6	1.30	27.8	6	30	28	17	02	00	—	—	22.6	20	16.2	7	00	00	00	00	00	
Fayoum . . . .	43.6	29	30.3	5	30	30	21	05	00	17.2	—	32.6	30	14.8	6	00	00	00	00	00	
Minya . . . .	44.0	20	31.2	5	30	30	22	06	00	17.0	—	24.2	30	14.3	6	00	00	00	00	00	
Assyout . . . .	45.0	1	30.6	5.6	30	30	22	06	00	19.5	—	24.6	20.30	15.8	6.7	00	00	00	00	00	
Luxor . . . .	47.5	21	35.3	6	30	30	30	21	40	17.2	—	26.8	3	17.8	8	00	00	00	00	00	
Aswan . . . .	48.2	2	35.2	7	30	30	30	23	50	—	—	31.0	1.3	20.7	7	00	00	00	00	00	
Siwa . . . .	43.1	30	28.6	5	30	28	23	07	00	16.3	—	24.4	27	14.9	5	00	00	00	00	00	
Bahariya . . . .	44.0	30	30.4	5	30	30	24	07	00	19.2	—	24.1	30	16.2	5	00	00	00	00	00	
Farafra . . . .	44.9	20	31.5	5	30	30	25	07	00	19.4	—	24.9	21	15.2	7	00	00	00	00	00	
Dakhla . . . .	46.2	1	32.6	6	30	30	27	11	02	21.0	—	26.2	14	13.7	7	00	00	00	00	00	
Kharga . . . .	47.4	1	34.4	5.7	30	30	27	16	03	21.1	—	28.5	28	19.1	6	00	00	00	00	00	
Tor . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hurghada . . . .	35.7	20	29.3	7	30	02	00	00	00	—	—	26.8	28	21.0	8	00	00	00	00	00	
Quseir . . . .	36.8	20	28.9	23	30	21	03	00	00	21.9	—	27.5	2	22.8	7	00	00	00	00	00	

TABLE A 3. — SKY COVER AND RAIN FALL

JUNE — 1980

Station Name	Mean Sky Cover					Rain Fall Mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amou nt	D.F.N.	Max. In One Day Value	Date (S)	<.1	>=0.1	>=1	>=50	>=10	>=25	>=50
Elsallum . . . . .	1.2	0.6	0.4	0.2	0.7	0.0	0.4	—	—	00	00	00	00	00	00	00
Mersa Matroh . . . . .	0.6	1.7	0.6	1.0	0.9	0.0	0.4	—	—	00	00	00	00	00	00	00
Al Exandria . . . . .	0.9	1.9	2.2	0.7	1.3	0.0	0.0	—	—	00	00	00	00	00	00	00
Port Said . . . . .	2.5	1.1	0.4	0.6	1.1	0.0	0.0	—	—	00	00	00	00	00	00	00
El Arish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo A.p. . . . .	0.6	1.5	0.0	0.2	0.5	0.0	0.2	—	—	00	00	00	00	00	00	00
El Fayoum . . . . .	—	0.3	0.0	0.0	—	0.0	0.0	—	—	00	00	00	00	00	00	00
El Minia . . . . .	0.0	0.0	0.0	0.1	0.0	0.0	0.0	—	—	00	00	00	00	00	00	00
Assuit . . . . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	00	00	00	00	00	00	00
Luxor . . . . .	0.0	0.1	0.0	0.0	0.0	0.0	0.0	—	—	00	00	00	00	00	00	00
Aswan . . . . .	0.2	0.5	0.2	0.2	0.2	0.0	0.0	—	—	00	00	00	00	00	00	00
Sewa . . . . .	0.6	0.2	0.1	0.2	0.3	0.0	0.0	—	—	00	00	00	00	00	00	00
El-Bahararia . . . . .	0.0	0.0	0.0	0.0	0.0	0.0	0.3	—	—	00	00	00	00	00	00	00
El Farafra . . . . .	—	0.0	0.0	0.1	—	0.0	0.1	—	—	00	00	00	00	00	00	00
El-Dakhla . . . . .	0.0	0.0	0.1	0.0	0.0	0.0	0.0	—	—	00	00	00	00	00	00	00
El-karga . . . . .	0.0	0.0	0.1	0.2	0.1	0.0	0.0	—	—	00	00	00	00	00	00	00
Tor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
El Ghurgada . . . . .	0.0	0.0	0.0	0.1	0.0	0.0	0.0	—	—	00	00	00	00	00	00	00
El Quseir . . . . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	00	00	00	00	00	00	00

Table A4 - DAYS OF OCCURRANCE OF MISCELLANEOUS WEATHER PHENOMENA

JUNE — 1980

Station	Precipitation		Frost	Thunderstorm	Mist Vis ≤ 1000 Metres	Fog Vis < 1000 Metres	Haze Vis 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandstorm Vis ≥ 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow										
Sallum . . . . .	00	00	00	00	00	06	00	03	00	00	27	00
Mersa Matruh . . .	00	00	00	00	00	10	02	06	00	00	25	01
Alexandria . . . .	00	00	00	00	00	00	00	00	00	00	20	00
Port Said . . . .	00	00	00	00	01	01	00	00	00	00	24	00
El Arish . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Tanta . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Cairo . . . . .	00	00	00	00	00	17	00	01	00	00	30	00
Fayoum . . . . .	00	00	00	00	00	00	00	01	00	00	30	00
Minya . . . . .	00	00	00	00	00	00	04	10	00	00	30	00
Assyout . . . . .	00	00	00	00	00	00	03	15	00	00	30	00
Luxor . . . . .	00	00	00	00	00	00	11	04	00	00	30	00
Aswan . . . . .	00	00	00	00	00	00	03	04	00	00	29	00
Siwa . . . . .	00	00	00	00	00	00	00	01	00	00	29	00
Bahariya . . . . .	00	00	00	00	00	00	00	01	00	00	30	00
Farafra . . . . .	00	00	00	00	00	00	01	02	00	00	30	00
Dakhla . . . . .	00	00	00	00	00	00	00	06	00	00	30	00
Kharga . . . . .	00	00	00	00	00	00	00	05	00	00	30	00
Tor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . . . .	00	00	00	00	00	00	00	08	00	00	30	00
Quseir . . . . .	00	00	00	00	00	00	00	00	00	00	30	00

**TABLE A5 NUMBER IN HOURS OF OCCURRENCE OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGE**

**JUNE — 1980**

Station Name	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All. DIR.	
EL Sallum . . .	24	04	00	1—10	59	127	65	65	26	11	04	04	15	31	145	62	614	
				11—27	02	05	02	06	00	00	00	00	00	00	00	48	21	78
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				> 48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	61	132	67	65	26	11	04	04	15	31	193	83	692	
Mersa Matroh . . (A)	51	00	00	1—10	51	41	16	13	01	02	06	07	18	133	94	135	526	
				11—27	06	13	01	00	00	00	00	00	00	00	00	47	76	143
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				> 48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	57	54	17	13	01	02	06	07	18	133	141	211	669	
Alexandria . . . (A)	21	00	00	1—10	149	139	30	13	12	06	03	01	07	02	19	172	553	
				11—27	24	47	06	00	00	00	00	00	00	00	00	69	146	
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				> 48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	173	186	36	13	12	06	03	01	07	02	19	241	699	
EL-Fayoum . . (A)	01	00	00	1—10	298	314	51	02	02	01	00	05	02	07	08	08	698	
				11—27	00	18	03	00	00	00	00	07	00	00	00	00	00	21
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				> 48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	298	332	54	02	02	01	00	05	02	07	08	08	719	
EL Minia . . .	04	00	00	1—10	266	35	01	00	01	12	03	01	03	04	04	36	366	
				11—27	323	23	00	00	00	00	00	00	01	00	00	03	350	
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				> 48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	589	58	01	00	01	12	03	01	04	04	04	39	716	
Assuit . . . . (A)	01	00	00	1—10	68	08	00	03	04	03	09	05	03	15	59	142	319	
				11—27	94	00	00	00	00	00	05	02	00	00	12	287	400	
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				> 48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	162	08	00	03	04	03	14	07	03	15	71	429	719	
Luxor . . . .	00	00	00	1—10	48	27	15	18	14	19	37	74	63	69	111	186	681	
				11—27	00	00	00	00	00	00	00	00	01	00	02	36	39	
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				< 48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	48	27	15	18	14	19	37	74	64	69	13	222	720	

**Table A5 (Contd) NUMBER IN HOURS OF OCCURRENCE OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGE JUNE — 1980**

Station Name	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	number in hours of occurrences wind blowing from the ranges of directions indicated												All directions	
					345	015	045	075	105	135	165	195	225	255	285	315		
					/	014	044	074	104	134	164	194	224	254	284	314	344	
Aswan . . . . .	02	03	00	1—10	247	44	08	12	09	17	31	16	14	18	54	113	583	
				11—27	96	00	00	00	00	01	00	00	00	00	00	02	33	132
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				>48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	343	44	08	12	09	18	31	16	14	18	56	146	715	
Sewa . . . . .	49	00	00	1—10	43	86	90	56	19	08	09	11	19	51	55	82	529	
				11—27	45	28	08	02	03	00	00	00	00	00	00	17	39	142
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				>48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	88	114	98	58	22	08	09	11	19	51	72	121	671	
El-Dakhla . . . . .	02	02	00	1—10	72	40	17	16	10	06	13	23	26	58	101	196	583	
				11—27	31	34	00	00	00	00	00	00	00	00	01	67	133	
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				>48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	103	74	17	16	10	06	13	23	26	58	107	263	716	
El-Kharga . . . . .	00	00	00	1—10	151	35	10	03	07	09	18	04	08	14	25	137	421	
				11—27	204	08	00	00	00	00	00	00	00	00	00	00	84	299
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				>48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	355	43	10	33	07	09	18	04	08	14	28	221	720	
El Ghurdaka . . . . .	00	00	00	1—10	27	76	05	03	03	06	02	00	00	05	110	61	289	
				11—27	100	16	00	00	00	00	00	00	00	00	00	57	246	422
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				>48	00	00	00	00	00	00	00	00	00	00	00	167	310	711
				All speed	127	83	05	03	03	06	02	00	00	05	05	167	310	711
El Quseir . . . . .	02	03	00	1—10	226	50	08	05	04	10	24	11	14	26	53	190	621	
				11—27	63	02	00	00	00	00	00	00	00	00	00	00	29	94
				28—47	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				>48	00	00	00	00	00	00	00	00	00	00	00	00	00	00
				All speed	289	52	08	05	04	10	24	11	14	26	53	219	715	

## UPPER AIR CLIMATOLOGICAL DATA

**Table B 1.—MONTHLY MEAS AND MONTHLY ABSOLUTE HIGHER & LOWER  
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT  
STDARD AND SELECTED PRESSURE SURFACES**

JUNE — 1980

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)		
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean	
Marsa Matruh 0000 UT	Surface of station	30	m.b.*	1010	1013	1006	30	19.5	23.8	14.2	30	14.8
	1000	30	112	140	75	30	19.5	24.0	13.8	30	14.5	
	850	30	1510	1541	1478	30	17.7	25.6	8.6	30	3.5	
	700	30	3143	3193	3060	30	8.7	14.0	— 1.1	30	— 6.8	
	600	30	4402	4472	4286	30	— 1.7	6.0	— 6.1	30	— 14.4	
	500	30	5843	5943	5730	30	— 7.8	— 2.9	— 13.7	30	— 22.9	
	400	29	7541	7675	7357	29	— 19.5	— 13.0	— 27.0	29	— 34.1	
	300	29	9622	9707	9393	29	— 33.3	— 25.1	— 39.9	29	— 45.6	
	250	28	10878	11077	10613	28	— 71.2	— 35.0	— 49.3	27	— 52.7	
	200	27	12378	12601	12117	27	— 49.4	— 38.9	— 54.9	26	— 59.9	
	150	26	14230	14457	13952	26	— 59.5	— 53.7	— 63.3	14	— 66.2	
	100	24	16705	16859	16458	24	— 69.9	— 61.6	— 77.0	—	—	
	70	13	18797	18952	18658	18	— 66.4	— 60.3	— 74.5	—	—	
	60	6	19812	19900	19800	6	— 64.4	— 63.0	— 67.4	—	—	
	50	6	20894	20979	20794	6	— 61.0	— 58.7	— 63.5	—	—	
	40	4	22422	22470	22360	4	— 56.8	— 55.9	— 59.0	—	—	
	30	2	24150	24203	24090	3	— 51.9	— 51.0	— 52.9	—	—	
	20	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	
Helwan 0000 U.T.	Surface of Station	30	994m.b.*	998m.b.*	990mb.*	30	21.7	26.4	18.0	30	14.7	
	1000	30	092	132	060	—	—	—	—	—	—	
	850	30	1499	1537	1465	29	19.8	26.6	10.1	28	02.3	
	700	30	3148	3186	3098	29	11.6	14.8	06.4	29	—06.3	
	600	30	4420	4457	4357	29	03.9	08.0	00.2	29	—13.9	
	500	30	5877	5921	5799	30	—05.8	—02.0	—08.8	30	—22.4	
	400	30	7589	7647	7499	30	—17.0	—11.7	—20.7	30	—32.0	
	300	29	9592	9797	9574	29	—30.3	—23.5	—36.6	29	—42.9	
	250	29	10968	11097	10830	29	—38.4	—32.9	—45.9	29	—50.6	
	200	27	12475	12659	12320	27	—47.5	—44.1	—50.7	27	—58.1	
	150	25	14326	14510	14160	25	—58.6	—56.0	—61.4	19	—67.2	
	100	20	16808	17013	16622	20	—69.6	—65.7	—72.3	—	—	
	70	13	18906	19023	18762	13	—68.9	—65.5	—74.0	—	—	
	60	11	19857	19950	19720	11	—66.9	—63.2	—71.3	—	—	
	50	11	20935	21011	20825	11	—63.4	—60.0	—68.5	—	—	
	40	4	22352	22470	22300	4	—59.7	—57.0	—63.5	—	—	
	30	4	24104	24202	24040	4	—56.5	—54.9	—58.1	—	—	
	20	2	26752	26791	26713	2	—52.9	—51.9	—54.0	—	—	
	10	—	—	—	—	—	—	—	—	—	—	
Ariyan 0000 UT	Surface of station	28	984m.b.*	988m.b.*	982m.b.*	28	28.2	35.5	22.0	28	3.8	
	1000	28	55	81	32	—	—	—	—	—	—	
	850	28	1465	1533	1474	28	24.4	29.8	51.7	28	—00.8	
	700	28	3161	3215	3132	28	13.1	15.4	10.0	28	—08.8	
	600	28	4435	4490	4391	28	3.5	06.2	—00.9	28	—14.3	
	500	28	5892	5937	5842	28	—5.0	—00.6	—11.6	28	—22.4	
	400	28	7619	7664	7578	28	—14.6	—11.0	—19.3	28	—33.3	
	300	28	9739	9812	9680	28	—29.3	—25.0	—32.8	28	—45.1	
	250	28	11016	11092	10948	28	—39.0	—35.5	—42.8	28	—59.8	
	200	27	12514	12632	12423	27	—50.2	—45.9	—52.9	27	—61.1	
	150	26	14340	14467	12224	25	—63.0	—60.1	—65.8	—	—	
	100	26	16752	16929	16611	26	—76.6	—72.9	—79.4	—	—	
	70	20	18786	18894	18674	20	—75.1	—70.0	—82.5	—	—	
	60	13	19757	19820	19630	13	—67.9	—64.3	—72.1	—	—	
	50	13	20810	20904	20724	13	—62.2	—59.0	—66.0	—	—	
	40	9	22329	22770	22210	9	—59.3	—56.3	—61.5	—	—	
	30	9	24018	24104	23942	6	—55.0	—52.5	—57.4	—	—	
	20	5	26678	26734	26592	5	—47.9	—43.1	—49.5	—	—	
	10	—	—	—	—	—	—	—	—	—	—	

— The number of cases the element has been observed during the month

## UPPER AIR CLIMATOLOGICAL DATA

**Table B 1 (contd.) — MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHEST & LOWEST  
VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT  
STANDARD AND SELECTED PRESSURE SURFACES**

JUNE 1980

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marsa Matruh 1200 U.T.	Surface	27	mb. 1010	mb. 1013	mb. 1006	27	24.8	28.6	20.6	27	18.0
	1000	27	113	149	77	27	23.8	28.6	18.2	27	16.1
	850	27	1519	1546	1478	27	18.5	23.2	12	27	0.8
	700	27	3159	3197	3082	27	10.4	14.4	3.1	27	— 7.5
	600	27	4433	4478	4322	27	2.3	6.0	— 3.3	27	— 16.3
	500	26	5870	5933	5738	26	— 7.6	— 3.4	— 13.9	26	— 24.7
	400	26	7568	7668	7399	26	— 19.5	— 13.5	— 24.1	26	— 34.8
	300	25	9652	9792	9437	25	— 32.7	— 25.9	— 39.0	25	— 46.0
	250	24	10913	11084	10671	24	— 40.6	— 36.0	— 47.9	23	— 50.9
	200	21	12401	12604	12143	21	— 48.9	— 45.1	— 55.3	20	— 60.2
	150	21	14256	14484	13985	21	— 57.7	— 53.7	— 61.5	13	— 68.5
	100	16	16788	17014	16548	16	— 67.4	— 61.0	— 72.6	—	—
	70	11	18920	19072	18748	11	— 69.8	— 62.5	— 72.0	—	—
	60	5	19870	19900	19840	5	— 69.5	— 64.7	— 74.3	—	—
	50	5	20914	20942	20885	5	— 6.2	— 59.5	— 75.0	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	30	994 mb.	998 mb.	990 mb.	30	34.0	40.0	26.8	30	07.5
	1000	30	084	121	049	—	—	—	—	—	—
	850	30	1525	1553	1498	30	22.4	29.5	12.6	30	00.5
	700	30	3183	3230	3138	30	13.5	17.8	04.9	29	— 12.3
	600	29	4462	4522	4347	29	05.8	09.6	— 0.9	28	— 18.5
	500	28	5929	6004	5823	28	— 03.4	00.4	— 08.8	28	— 26.5
	400	26	7661	7755	7533	26	— 14.5	— 07.9	— 19.7	26	— 35.1
	300	24	9792	9919	9633	24	— 26.8	— 20.7	— 34.0	24	— 45.5
	250	20	11087	11221	10903	20	— 34.8	— 30.3	— 42.8	20	— 51.6
	200	20	12603	12757	12406	20	— 43.7	— 39.7	— 49.5	20	— 58.7
	150	18	14513	14657	14269	17	— 54.5	— 51.1	— 57.6	16	— 67.4
	100	16	17054	17190	16301	16	— 64.6	— 60.5	— 69.5	—	—
	70	15	19228	19368	19017	15	— 63.7	— 59.5	— 67.9	—	—
	60	10	20230	20350	20000	10	— 59.3	— 55.0	— 62.4	—	—
	50	10	21364	21464	21136	10	— 53.7	— 48.6	— 58.0	—	—
	40	6	22915	23050	22650	6	— 47.8	— 45.1	— 50.0	—	—
	30	6	24738	24874	24720	6	— 42.3	— 40.0	— 44.7	—	—
	20	1	27674	—	—	1	— 36.1	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface	28	984 mb.	987 mb.	982 mb.	28	40.7	46.4	34.4	28	5.9
	1000	28	47	75	24	—	—	—	—	—	—
	850	28	1516	1550	1488	28	27.7	32.5	20.6	28	— 2.1
	700	28	3194	3275	3149	28	15.0	19.8	10.4	28	— 11.6
	600	28	4478	4556	4423	28	5.6	9.3	0.5	28	— 17.0
	500	28	5940	6033	5885	28	— 3.2	1.2	— 9.6	28	— 25.3
	400	28	7679	7780	7631	28	— 12.9	— 10.0	— 17.5	28	— 34.3
	300	26	9818	9934	9731	26	— 27.1	— 24.2	— 32.3	26	— 47.0
	250	26	11107	11238	10992	26	— 36.6	— 32.8	— 40.6	26	— 57.0
	200	26	12617	12775	12484	26	— 47.8	— 44.6	— 51.9	26	— 62.8
	150	25	14400	14667	14302	25	— 61.2	— 54.5	— 64.5	7	— 72.2
	100	24	16901	17204	16712	24	— 74.4	— 63.6	— 78.2	—	—
	70	24	18978	19388	18804	24	— 72.2	— 61.6	— 79.0	—	—
	60	18	19921	20370	19280	17	— 65.6	— 58.3	— 69.3	—	—
	50	18	21037	21506	20824	17	— 60.6	— 54.3	— 68.9	—	—
	40	10	22417	22600	21980	10	— 56.4	— 54.7	— 61.7	—	—
	30	10	24233	24340	24147	10	— 23.0	— 47.4	— 62.7	—	—
	20	4	26932	27001	26862	4	— 40.8	— 34.1	— 49.2	—	—
	10	—	—	—	—	—	—	—	—	—	—

N— The number of cases the element has been observed during the month.

\* The atmospheric pressure corrected to the elevation of the radiosonde station.

**TABLE BS. MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE  
THE HIGHEST WIND SPEED IN THE UPPER AIR**

JUNE -- 1980.

Station	Freezing Level									First-tropopause									Highest wind speed				
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)	Pressure (mb.)	Direction (000-360°)	Speed in Knots	
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000-360°)	Speed in Knots	
U.T. 0000	(N)	(N)	(N)							(N)	(N)	(N)											
Marsa Matruh(A)	4560 (30)	581 (30)	-15.5 (30)	5410	535	-11.3	2530	747	-4.4	16067 (13)	118 (13)	-67.1 (13)	19000	95	-75.9	1860	205	-51.3	9710	287	220	110	
Helwan ..	5009 (36)	559 (30)	-17.4 (30)	5620	518	-15.5	4500	569	-16.8	16876 (12)	099 (12)	-70.3 (12)	17950	082	-72.2	15600	119	-66.8	11330	233	290	108	
U.T. 1200	Aswan ... (A)	5238 (28)	560 (28)	-16.6 (28)	5690	516	-19.2	4180	619	-11.6	17034 (15)	96 (15)	-78.2 (15)	18070	80	-82.5	16110	110	-77.0	15960	—	150	62
Marsa Matruh (A)	(N)	(N)	(N)							(N)	(N)	(N)											
Helwan ..	4764 (27)	577 (27)	-18.2 (27)	5450	532	-13.5	3600	660	-3.4	13573 (7)	169 (7)	-60.1 (7)	17670	86	-75.2	10310	271	-40.6	8160	373	260	136	
Aswan ... (A)	5379 (28)	537 (28)	-22.3 (28)	5920	503	-22.1	4160	620	-5.9	17027 (13)	101 (13)	-64.8 (13)	18300	083	-68.0	15300	128	-59.0	17410	173	120	120	
	5318 (28)	542 (28)	-21.2 (28)	6150	489	-25.1	4500	595	-10.2	17292 (22)	094 (22)	-76.3 (22)	18580	076	-77.2	16710	102	-76.1	13840	163	62	62	

N - The numbers of cases the element has been observed during the month.

TABLE B 3, NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED  
AND THE MEAN SCALAR WIND SPPD AT THE STANDARD AND SELECTED PRESSURE  
SURFACES. MERSA MATRUH — JUEN 1980

Time	Pressure Surface Millibar	Wind between range of direction (000—390)														Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)								
		345—014		015—044		045—074		075—104		105—134		135—164		165—194		195—224		225—254		255—284		285—314				
		N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m	N	(ft) m			
	Surface	0	—	0	—	0	—	2	2	3	5	0	—	0	—	1	8	12	8	6	8	4	9	2	30	7
T.U. 0000	1000	1	3	0	—	0	—	4	6	1	10	0	—	0	—	0	—	12	13	8	14	4	11	0	30	12
	850	6	19	3	15	2	20	0	—	0	—	0	—	1	11	0	—	2	24	2	18	6	25	8	24	21
	700	5	18	2	20	1	10	1	7	0	—	0	—	0	—	2	44	5	28	5	31	5	42	6	16	30
	600	3	12	1	10	0	—	1	3	0	—	0	—	0	—	1	37	6	52	7	31	7	16	4	18	24
	500	2	34	0	—	1	25	0	—	0	—	0	—	0	—	0	—	10	36	9	25	5	2	2	26	29
	400	1	28	1	25	0	—	0	—	0	—	0	—	0	—	1	47	11	43	7	29	5	33	1	48	28
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	57	12	54	5	36	4	34	1	48	37
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	61	12	58	4	61	3	31	1	38	25
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	64	5	52	2	38	2	24	1	33	14
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	64	4	36	1	35	1	30	0	—	8
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	19	2	21	1	25	0	—	0	—	42
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Surface	5	11	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10	16	10	13	0	27	14
T.U. 1200	1000	3	15	2	12	0	—	0	—	0	—	0	—	0	—	0	—	1	16	0	—	11	21	10	15	27
	850	3	15	3	23	0	—	1	13	0	—	0	—	0	—	1	14	4	20	6	19	2	16	7	17	27
	600	5	21	2	32	2	22	0	—	0	—	0	—	0	—	0	—	3	31	7	23	7	21	1	36	24
	500	3	26	1	11	2	13	0	—	0	—	0	—	0	—	2	38	2	30	9	27	4	28	4	19	27
	400	0	—	1	10	0	—	1	12	0	—	0	—	1	11	0	—	3	31	7	40	6	21	5	19	26
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	32	11	28	5	45	4	23	3	21	25
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	34	11	51	3	24	1	32	1	54	18
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	58	10	65	5	37	1	40	0	—	18
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	63	5	65	3	39	3	49	0	—	14
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	48	1	38	3	35	1	33	0	—	8
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	9	0	—	1	13	6
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N—The numbers of cases the wind has been observed within the range of direction during the month.

L—N—The total number of cases the wind has been observed for all directions during the month.

Table B 3. — NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD-AND SELECTED PRESSURE SURFACES

HELWAN JUNE — 1980

Pressure of (millibar)	Pressure Surface Millibar	Wind between specified ranges of direction (000—360)°														Number of cases winds	Total number of observations (TN)	Mean scalar wind speed (knots)									
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314					
		N	(ft) in/ sec	N	(ft) m/ sec	N	(ft) m/ sec	N	(ft) m/ sec	N	(ft) m/ sec	N	(ft) m/ sec														
0000 U.T.	Surface of Station	10	10	8	11	4	13	0	—	0	—	0	—	0	—	0	—	0	—	1	05	6	07	1	30	9	
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	850	8	14	6	11	6	14	5	14	0	—	0	—	0	—	0	15	0	—	0	—	3	14	2	08	0	
	700	9	13	1	09	2	11	2	13	1	08	0	—	0	—	1	11	4	12	1	22	4	16	5	13	0	
	600	2	10	4	15	1	13	1	09	0	—	0	—	0	—	2	06	3	15	3	24	10	20	4	20	0	
	500	1	17	2	15	1	13	2	14	0	—	0	—	1	05	1	13	2	18	7	21	8	26	5	18	0	
	400	1	19	3	18	0	—	0	—	1	14	0	—	0	—	0	—	1	11	5	47	10	25	6	22	0	
	300	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	7	44	10	35	3	22	0	21	35	
	250	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	59	5	52	2	36	0	15	53	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	59	2	33	1	20	0	8	48	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	43	1	49	0	—	0	2	45	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	—	—	—	—	—	—		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface of Station	15	13	3	17	2	12	0	—	0	—	0	—	0	—	0	—	2	06	1	15	7	11	0	30	13	
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	08	1	08	5	16	3	08	0	
	850	2	07	8	10	6	09	5	13	2	08	1	02	0	—	0	—	2	08	1	08	5	16	3	10	0	
	700	2	15	6	10	2	07	1	16	0	—	0	—	3	10	0	—	4	16	8	26	6	14	0	29	13	
	600	0	—	2	20	2	03	0	—	0	—	1	05	0	—	2	06	2	10	4	28	12	26	8	14	0	
	500	0	—	1	25	2	18	1	05	1	12	0	—	1	14	5	20	7	32	3	17	0	27	21			
	400	1	04	2	22	0	—	0	—	1	02	0	—	0	—	0	—	0	92	30	7	34	1	10	0	22	27
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	37	8	48	5	51	3	20	0	19	33	0		
	250	2	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	0	18	0	44		
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	47	0	17	0	47		
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	64	0	1	21	0	9	45		
	100	0	—	0	—	0	—	0	—	0	—	0	—	2	—	3	57	0	1	09	0	6	45	0	3		
	70	1	11	0	—	0	—	0	—	0	—	0	—	1	29	1	70	0	0	0	0	0	0	0	37		
	60	0	—	0	—	0	—	0	—	0	—	0	—	1	29	1	68	0	0	0	0	0	0	0	2		
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	76	0	0	0	0	0	1		
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	79	0	0	0	0	0	1		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the wind has been observed within the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

TABLE B 3, NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES  
ASSWAN (A)— JUNE 1980

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360)												Number of Calm winds	Total number of Observations (TN)	Mean scalar wind speed knots														
		345		015		045		075		105		135		165		195		225		255		285								
		345	015	045	075	105	135	165	195	225	255	285	315			345	015	045	075	105	135	165	195	225	255	285	315			
		N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N	(ff) m/ ses	N		
0000 U.T.	Surface of station	13	10	1	3	0	—	1	7	0	—	0	—	0	—	0	—	0	—	0	—	5	12	8	10	0	28	10		
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	850	3	11	1	19	2	4	1	11	0	—	0	—	1	7	1	10	0	—	1	21	11	15	7	11	0	28	12		
	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1200 U.T.	Surface of station	11	12	1	4	0	—	1	5	0	—	3	7	1	10	1	10	1	5	2	10	4	10	3	10	0	28	10		
	1000	—	—	—	—	—	—	—	—	—	—	2	4	0	—	1	16	0	—	5	10	7	10	8	14	0	27	12		
	850	2	17	2	14	0	—	0	—	0	—	2	5	0	—	4	10	3	20	11	20	2	8	3	11	0	27	15		
	700	1	30	0	—	1	4	0	—	0	—	1	7	1	3	2	13	1	26	6	13	6	14	2	8	4	10	0	26	12
	600	2	16	0	—	1	10	0	—	1	7	1	8	1	3	0	—	2	8	7	15	7	14	4	12	0	26	12		
	500	2	9	1	13	1	12	0	—	2	10	1	5	2	13	0	—	9	16	6	18	2	12	0	—	0	25	18		
	400	2	6	2	16	0	—	0	—	2	10	0	—	3	8	1	24	8	28	5	22	0	—	0	—	0	25	23		
	300	0	—	1	4	2	8	1	7	4	10	0	—	3	8	1	24	8	28	5	22	0	—	0	—	0	25	23		
	250	1	40	0	—	0	—	4	13	2	21	1	16	1	24	4	18	8	32	4	24	0	—	0	—	0	25	23		
	200	0	—	0	—	2	11	0	—	2	18	0	—	1	31	0	—	3	39	2	51	0	—	0	—	0	25	23		
	150	1	12	0	—	0	—	0	—	0	—	1	12	0	—	1	34	0	—	0	—	0	—	0	—	0	25	23		
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	23		
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

## MONTHLY REVIEW OF AGROMETEOROLOGICAL STATIONS

### MERSA MATRUH — JUNE 1980

The mean daily air temperature was slightly below normal. The mean daily relative humidity was above normal. The month was rainless, while the normal total monthly rainfall is 2.5 mms.

Weather was in general, mild at day and relatively at night. Maximum temperatures ranged between 22.7°C on the 1 st and 31.6 °C on the 31 st. Minimum temperatures ranged between 13.8°C on the 6 th and 20°C on the 15 th.

The mean daily actual sumshine duration was 0.7 hr. above normal. The mean daily wind speed at 1.5 metre height was 1.0 m./sec. below normal.

The highest maximum soil temperatures were around those of last June, with departures between - 2.2°C at 2cms. depth and + 1.3°C at 200cms. depth. The lowest minimum soil temperatures were below those of last June, with departures between 0.4°C at 100 cms. depth and 3.8°C at 20 cms. depth.

### TAHRIR — JUNE 1980

The mean daily air temperature and relative humidity were slightly below normal. The month was rainless as it normally is.

The month was generally hot. Maximum temperatures ranged between 28.0°C on the 5th and 39.3°C on the 29th. Minimum temperatures ranged between 11.7°C on the 6 th. and 21.2°C on the 25 th.

The mean daily actual sunshin duration was 0.1 hr. below normal. The mean daily pan evaporation was 1.42 mms. below normal. The mean daily wind speed at 1.5 mete height was 0.3 m./sec. below normal.

The highest maximum soil temperatures were around normal, with departures between - 1.0°C at 600cms. depth and + 1.0°C at 10cms. depth. The lowest minimum soil temperatures were around normal, with departures between - 2.1°C at 5 cms. depth and + 0.5°C at 50 cms. depth.

### BAHTIM — JUNE 1980

The mean daily air temperature was nearly equal to normal. The mean daily relative humidity was slightly above normal. The month was rainless, as it normally is.

The month was generally hot at day and relatively cold at night. Maximum temperatures ranged between 28.8°C on the 5 th and 39.1°C on the 29 th. Minimum temperatures ranged between 12.9°C on the 6 th and 21.2°C on the 16 th.

The mean daily actual sunshine duration was 0.1 hr. below normal. The mean daily pan evaporation was 0.32 mm. below normal. The mean daily wind speed at 1.5 metre height was 0.5 m./sec. below normal.

The highest maximum soil temperatures were above normal, with departures between 0.1°C at 300 cms. depth and 3.7°C at 5 cms. depth. The lowest minimum soil temperatures were around normal, with departures between - 0.4°C at 2 cms. depth and - 1.0°C at 50 cms. depth.

#### **ASYOUT — JUNE 1980**

The mean daily air temperature was nearly equal to that of last June. The mean daily relative humidity was slightly less than that of last June. The month was rainless as well as last June.

The month was generally hot at day and generally mild at night. Maximum temperatures ranged between 32.4°C on the 5 th and 6 th and 46.4°C on the 1 st. Minimum temperatures ranged between 15.4°C on the 7 th and 23.8°C on the 21st.

The mean daily actual sunshine duration was equal to that of last June. The mean daily pan evaporation was 1.34 mms. above that of last June. The mean daily wind speed at 1.5 metre height was 0.1 m./sec. above that of last June.

The highest maximum soil temperatures were around those of last June, with departures between - 2.0°C at 5 and 10 cms. depth and + 3.5°C at 2 cms. depth. The lowest minimum soil temperatures were around those of last June, with departures between - 1.4°C at 5 cms. depth and + 0.4°C at 50 cms. depth

#### **KHARGA — JUNE 1980**

The mean daily air temperature was equal to normal. The mean daily relative humidity was above normal. The month was rainless, as it normally is.

Weather was generally hot. Maximum temperatures ranged between 34.4°C on the 7 th and 47.4°C on the 1 st. Minimum temperatures ranged between 19.1°C on the 6 th and 28.5°C on the 28 th.

The mean daily actual sunshine duration was 0.2 hr. below normal. The mean daily pan evaporation was 3.96 mms. below normal. The mean daily wind speed at 1.5 metre height was 1.5 m./sec. below normal.

The highest maximum soil temperatures were around normal, with departures between - 0.3°C at 50 cms. depth and + 3.0°C at 5 cms. depth. The lowest minimum soil temperatures were around normal with departures between - 1.6°C at 5 cms. depth and + 0.7°C at 100 cms. depth.

**Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND**

**JUNE — 1980**

STATION	Air Temperature (°C)					Duration in hours to the nearest half hour of air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
M. Matruh . . . .	26.5	17.3	22.2	19.6	23.0	24.0	24.0	24.0	24.0	23.4	17.4	4.7	0.3	0.0	0.0	0.0
Tahrir . . . . .	34.4	17.3	25.1	20.5	26.8	24.0	24.0	24.0	24.0	23.1	18.9	10.8	5.5	1.1	0.0	0.0
Bahtim . . . . .	34.5	17.3	25.6	21.3	27.3	24.0	24.0	24.0	24.0	23.4	19.4	11.9	6.3	1.5	0.0	0.0
Assiut . . . . .	38.7	20.3	29.3	25.0	30.8	24.0	24.0	24.0	24.0	24.0	22.9	16.4	10.4	5.1	1.2	0.0
Kharga . . . . .	40.4	23.6	32.6	28.8	34.0	24.0	24.0	24.0	24.0	24.0	24.0	21.1	14.5	8.7	3.3	0.5

**Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND,  
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5 cms ABOVE GROUND OVER  
DIFFERENT FIELDS.**

**JUNE — 1980**

STATION	Max. Temp. at 1½ Metres				Min. Temp. at 1½ Metres				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry Soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh . . . .	31.6	30	22.7	1	20.0	15	13.8	6	10.2	8	—	—
Tahrir . . . . .	39.3	29	28.0	5	21.2	25	11.7	6	10.4	6	9.6	9
Bahtim . . . . .	39.1	29	28.8	5	21.2	16	12.9	6	8.9	6	8.1	6.9
Assiut . . . . .	46.4	1	32.4	5.6	23.8	21	15.4	7	12.2	7	—	—
Kharga . . . . .	47.4	1	34.4	5.7	28.2	1	19.1	6	15.2	6	—	—

**Table C 3.—SOLAR + SKY RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY & VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVBORATION AND RAINFALL.**

**JUNE — 1980**

STATION	(Solar+Sky Radiation, m. cal/cm²)	Duration of Bright Sunshine			Relative Humidity				Vapour Pressure (mms)				Evaporation (mms)	RainFall (mms)					
		Total	Actual	Total Possible	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date		Piche	Pan Class(A)	Total Amount	Max. Fall in one day	Date
M. Matruh	365.1	425.3	86	84	70	84	70	44	12	16.7	29	10.7	7	5.0	—	0.0	0.0	—	—
Tahrir . .	365.6	422.3	87	59	32	59	32	18	19	13.4	29	7.4	19	8.3	10.83	0.0	0.0	—	—
Bahtim . .	365.2	421.8	84	57	31	57	31	18	19	13.1	30	7.6	7	11.0	12.74	0.0	0.0	—	—
Assiut . .	381.8	413.5	92	32	16	32	16	08	1	9.2	30	4.6	3	12.9	15.80	0.0	0.0	—	—
Kharga . .	365.9	409.8	89	38	25	38	25	16	3	13.4	29	5.9	1	19.8	19.90	0.0	0.0	—	—

**Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS  
IN DIFFERENT FIELDS(cms)**

JUNE — 1980

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (Cms.)										Extreme soil temperature (°C) in grass field at different depths (Cms.)									
			2	5	10	20	50	100	200	300		2	5	10	20	50	100	200	300		
M. Matruh . . . . .	H L	—	—	42.0	39.6	43.4	30.2	26.7	25.0	22.9	—	—	—	—	—	—	—	—	—	—	—
		—	—	20.4	20.4	20.5	21.2	24.0	22.6	21.0	—	—	—	—	—	—	—	—	—	—	—
Tahrir . . . . .	H L	—	—	55.3	47.8	42.9	37.0	33.2	30.1	26.9	25.3	—	—	36.9	35.6	32.6	30.0	28.5	27.5	25.3	—
		—	—	25.7	23.6	24.0	27.7	28.9	27.0	24.6	24.0	—	—	22.1	21.0	20.8	22.0	25.0	25.0	23.1	—
Bahtim . . . . .	H L	—	—	56.1	49.0	41.3	35.7	31.7	28.5	25.4	24.0	—	—	44.6	35.2	33.6	30.2	27.3	24.8	22.5	—
		—	—	27.6	26.5	26.4	29.4	28.2	25.8	24.1	23.4	—	—	21.5	21.0	21.7	23.5	23.7	22.3	21.4	—
Assiut . . . . .	H L	—	—	65.3	53.1	44.7	37.6	39.7	30.0	27.4	25.6	—	—	—	—	—	—	—	—	—	—
		—	—	31.5	28.2	29.0	32.0	31.0	28.4	26.1	24.8	—	—	—	—	—	—	—	—	—	—
Kharga . . . . .	H L	—	—	59.3	54.5	46.7	49.8	34.1	32.0	29.5	28.5	—	—	—	—	—	—	—	—	—	—
		—	—	20.4	23.1	28.1	31.8	32.2	30.7	28.0	27.5	—	—	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

JUNE — 1980

STATION	Wind Speed m/sec at 2% metres)			Days with surface wind speed at 10 metres								Max. Gust kometre	
	Mean of the day	Night time mean	Day time mean	≥10 (knots)	≥15 (knots)	≥20 (knots)	≥25 (knots)	≥30 (knots)	≥35 (knots)	≥40 (knots)	Value (knots)		Date
M. Matruh . . . . .	3.4	2.3	4.6	30	20	4	6	0	0	0	25		16
Tahrir . . . . .	2.2	1.5	2.9	30	22	4	0	0	0	0	25		11
Bahtim . . . . .	2.3	1.5	2.3	29	11	0	0	0	0	0	25		10
Assiut . . . . .	0.6	0.5	0.6	27	15	0	0	0	0	0	28		7
Kharga . . . . .	3.4	2.4	4.4	30	25	14	2	1	0	0	36		9

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